

KYMENLAAKSO UNIVERSITY OF APPLIED SCIENCES

Logistiikka / International Logistics

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MODIFYING A SERVICE SUPPLIER PERFORMANCE MEASUREMENT SYSTEM TO ENABLE POSITIVE RECOGNITION

Bachelor's Thesis 2014

## ABSTRACT

KYMENLAAKSO UNIVERSITY OF APPLIED SCIENCES

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KOIVISTO, SINI

Modifying a Service Supplier Measurement System to  
Enable Positive Recognition

Bachelor's Thesis

67 pages + 9 pages of appendices

Supervisor

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supplier, performance, measurement, rewarding,  
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Traditionally companies have only measured suppliers' negative performance. Modern procurement is, however, changing supplier performance measurement to recognise positive, value adding performance. Procurement is now perceived as management of external resources, and the importance of co-operation and incentivisation has been realised in a growing number of companies.

The objectives of this thesis were to study supplier incentivisation and management through theoretical and empirical research in order to provide the case company with suggestions on what to measure to enable positive recognition, and how to reward suppliers. The company's current system does not recognise positive performance.

Theoretical study was based on literature, research publications, and practical examples related to supplier management and incentivisation. The company's current situation was examined through interviews and document review. A carrier survey based on the theory and examination of current situation was conducted to provide the main empirical data.

The study revealed that recognising positive performance and incentive systems improve suppliers' motivation and performance when objectives and incentives are mutually agreed on. As outcome, a modified carrier ranking system and new measurement areas were presented as well as suggestion for a supplier incentive system. Improvements for performance feedback and monitoring were also suggested.

# TIIVISTELMÄ

KYMENLAAKSON AMMATTIKORKEAKOULU

Logistiikka

KOIVISTO, SINI

Toimittajien suorituskyvyn mittaajärjestelmän  
kehittäminen palkitsemisen mahdollistavaksi

Opinnäytetyö

67 sivua + 9 liitesivua

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Avainsanat

toimittaja, suorituskyky, mittaaminen, palkitseminen,  
kannustaminen, tunnustus, kehitys, toimittajasuhteet,  
hallinta, hankinnat, logistiikkapalvelutoimittaja

Perinteisesti yritykset ovat mitanneet vain toimittajien huonoa suoriutumista. Nykyaikainen hankinta on kuitenkin muuttamassa toimittajien suorituskyvyn mittausta tunnistamaan positiivisen suoriutumisen. Hankinnat ymmärretään ulkoisten resurssien johtamiseksi. Yhteistyön sekä kannustamisen tärkeys on huomattu yhä useammassa yrityksessä. Tässä opinnäytetyössä tutkittiin toimittajien palkitsemista sopimusvaatimukset ylittävästä suoriutumisesta teorian ja kuljetusliikkeiden näkemysten pohjalta.

Työn tavoitteena oli luoda toimeksiantajalle perusteltuja ehdotuksia toimittajasuhteiden hallinnan kehittämiseksi. Käytössä oleva järjestelmä huomioi ainoastaan negatiivisen suoriutumisen. Teoreettinen osio perustuu alan kirjallisuuteen, tutkimusjulkaisuihin sekä olemassa oleviin käytäntöihin. Yrityksen tarpeet selvitettiin haastatteluilla ja dokumenttien tutkimisella. Tärkein empiirinen aineisto saatiin kuljetusliikkeille suoritettulla kyselyllä, joka tehtiin teoriaosuuden sekä yrityksen nykytilan selvityksen pohjalta.

Tehtyjen havaintojen perusteella positiivisen suoriutumisen mittaaminen ja kannustinjärjestelmät parantavat toimittajien motivaatiota ja suorituskykyä erityisesti silloin, kun tavoitteet ja kannustimet sovitaan yhdessä toimittajien kanssa. Työn tulokseksi muodostui ehdotus uudesta kuljetusliikkeiden luokituksesta, uusista mittaalueista, kannustejärjestelmästä sekä parannusehdotuksia suorituskykypalautteeseen ja suoriutumisen seuraamiseen.

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## Appendix 1. Survey

## LIST OF ABBREVIATIONS

CIPS	Chartered Institute of Purchasing & Supply
KPI	Key Performance Indicator
TCO	Total cost of ownership
CPRS	Carrier Performance Measurement System
LSP	Logistics service provider
CEFIC	The European Chemical Industry Council
SQAS	Safety and Quality Assessment System
HSE	Health, Safety and Environment
FCA	Free Carrier (named place of delivery), Incoterms 2010
YTD	Year-to-date
ECTA	European Chemical Transport Association
CSR	Customer Service Representative

## 1 INTRODUCTION

Company X has a supplier performance measurement system for logistic service providers and carriers, but for the time being it only notes negative performance. A supplier starts with 100 points and can only lower the score or get back to 100. This system does not recognise outstanding performance and extra effort by the supplier, such as solving the company's issues, acting as back-up or providing innovative solutions.

The performance of suppliers is especially important for manufacturing companies, as between 50-80 percent of a products total price comprises of goods and services bought from external suppliers (Minahan & Vigoroso, 2002, p. 4). Suppliers' performance also significantly affect product quality, price, service levels and customer satisfaction, inventory levels and in some cases even product development and can help create innovations. Because of this, companies need to measure and monitor the performance of their suppliers continuously. In the case of logistic service providers and transport companies being the suppliers, price, inventory, service levels and customer satisfaction are especially affected by the supplier's performance.

Aberdeen defines supplier performance measurement, or supplier performance management, as measuring, analysing and managing supplier performance to gain financial benefits, reduce risks, and encourage continuous improvement (Minahan & Vigoroso, 2002, p. 6). This thesis focuses on encouraging continuous improvement among suppliers by nominating motivational tools that Company X can use to further improve their suppliers' performance and thus improve the entire supply chain.

## 2 BACKGROUND

The reasons and methods for conducting this study are provided in this section. Information about the surveys is also presented; theory, the model chosen, and the software used.

### 2.1 Theoretical framework

The process of awarding suppliers for exceeding expectations is not standard practice and thus the theory and terminology are somewhat incoherent. Supplier recognition, incentives, incentivisation and awarding is used when speaking of the motivation of

suppliers with intangible and tangible rewards. Overlapping terms and scarcity of research suggests that the process has not yet been well established. Nevertheless, awarding supplier for good performance is not a new phenomenon. Modeland, Van Dyke and Kemp (2008, p. 2) found references related to supplier incentive systems dating back to the early 1990s and before.

The Chartered Institute of Purchasing and Supply (CIPS) and UK government have released publications in which supplier incentivisation has been defined as a contractual process. It should be emphasised, that in this study the word incentivisation is used when referring to both non-contractual and contractual motivation of suppliers using different tools, as incentivisation best describes the process as a whole: measuring with clear metrics and presenting rewards that act as motivation for the suppliers to reach achievable goals.

In the CIPS Knowledge Work publication “Incentivisation” (2006, p. 4) a definition by Central Unit of Procurement (CUP) is presented:

*“A process by which a provider is motivated to achieve extra value added services over those specified originally and which are of material benefit to the user. These should be attainable against pre-defined criteria. The process should benefit both parties”.*

Modeland et al. (2008, p. 2-3) propose that two kinds of motivation exist, material and immaterial. Immaterial motivational tools are formal recognition, supplier recognition letters and other things that do not directly provide material benefits. Material motivation stems from knowledge of value to be gained such as increase of business resulting from better performance. Motivational theory concerning business is examined when needed.

Because Company X already has a supplier performance measurement system, this thesis focuses on recognising good performance, but performance measurement as a whole is addressed to support the study. Company X’s performance measurement system is assessed and modifications are proposed as necessary to create a well-functioning supplier incentive system.



As supplier development is also closely related to incentivisation and sometimes even used as a synonym, the theory behind it is exploited when it supports the study.

Krause & Scannell (2002, p. 13-14) list four supplier development practices:

- Competitive pressure
- Direct involvement e.g. training, investment, on-site visits
- Formal assessment and feedback
- Supplier incentives

Once a company publishes its supplier incentive system and related objectives, it is to be expected that at least some of its suppliers will perform better because of competitive pressure created as a result.

Building an interactive relationship with the suppliers and providing useful feedback is needed to support positive recognition. The level of effort should not be the same for all suppliers, but a decent level of interaction is needed with each. In order to determine the amount of time and cost spent on each supplier, there should be some differentiation between them. For this thesis it is suggested that the decision is based on carriers' performance and activeness in providing development suggestions.

As a conclusion, this thesis examines the theory from practical and motivational perspective. The theory must support the company's existing performance measurement system and suggest enhancements to it when needed. As part of the data is obtained from surveys, the theory behind creating and analysing effective surveys is also studied.

## 2.2 Research task and objectives

The research task is to modify Company X's road transport carrier performance measurement system to recognise positive performance and to create a suggestion for a supplier incentive system. This thesis aims to find the answer for the following questions: What should be measured and how, to enable carrier performance recognition? What type of incentives appeal to the carriers? The company has separate policies for warehousing and sea transports and therefore the thesis focuses on deliveries of packed and bulk products with trucks.

The current system uses weighed KPI's that measure only negative performance. KPI's recognise problems in loading performance, delivery performance, document, safety, and information. Most KPI's are safety related. The KPI's are known to the suppliers; the KPI table is a contract appendix and the performance is reported to suppliers monthly.

Positive performance is not recorded as there is no formal way or procedure to do so. Such information exists only as tacit knowledge among personnel. Some suppliers that are performing poorly when measured with current KPI's are actually providing added value by giving exceptional customer service to Company X's customers, being flexible and solving the company's problems. One of the research objectives is to find KPI's which will recognise and encourage positive performance in currently measured areas as well as include new measurement areas such as customer flexibility.

A suggestion for a supplier incentive system is also introduced with indication of benefit to be gained. CIPS Professional Practice Team (2006, p. 3) states in its principles of incentivisation that the bottom line and benefit gaining should always be a determining factor when choosing whether or not to apply incentivisation. Benefits gained from supplier incentive system include improved cost over time, quality, delivery, involvement and service performance (Modeland et al., 2008, p. 2). Possible financial benefits will not be immediate. Improved quality of service and deliveries will increase customer satisfaction, and an enhanced loading and delivery process will shorten lead-time. The improvements create possibilities to gain more business.

In order to assure effective incentivisation, improvements are also needed in supplier relationships, interaction and in quality and frequency of feedback. There are no guidelines for suppliers to give feedback or suggestions for improvement. Suppliers receive a vague Excel table with their performance information monthly and are expected to take corrective actions as required.

CIPS Professional Practice Team (2006, p. 3) points out that purchasing and supply management professionals must know of the possible incentive tools, approaches and theory in order for the incentive system to work effectively. This thesis will also act as an informational and reference guide for Company X logistics, supply management and purchasing personnel.

### 2.3 Research methods and implementation

The research was based on theory obtained from studies conducted in the field of supplier incentivisation and development, related literature, and on practical examples and models.

Company X's carriers were surveyed. The survey sent to the carriers utilized their experiences with Company X and with other companies, especially ones using incentivisation. The survey also included the possibility for the carriers to make proposals, thus getting them involved in the creation of the supplier incentive system, which supposedly evokes a more positive reaction to the survey. Such questions also revealed active carriers willing to involve in development processes.

Interviews were a source of vital information, especially in the case of positive performance presented by the suppliers, as it is currently stored only as tacit knowledge. Interviews are a more interactive method than surveys and provide more in-depth information. Surveys on the other hand provide comparable data which is clear to analyse.

Distribution managers, a contracting manager, and a distributions specialist were interviewed. The contracting manager and distribution specialist were interviewed in free form as they are located in the same country as the conductor of the thesis work. Distribution managers were interviewed via email. Each of the persons mentioned above were asked to fill a questionnaire, apart from the contracting manager, who was interviewed according to the questionnaire. The information acquired with interviews and questionnaires were utilised in clarifying the company's present situation and improvement needs. Said information was based on the personnel's practical experience and was therefore significant for creating a usable system.

Figure 1 visualises the research framework as explained in the previous sections.

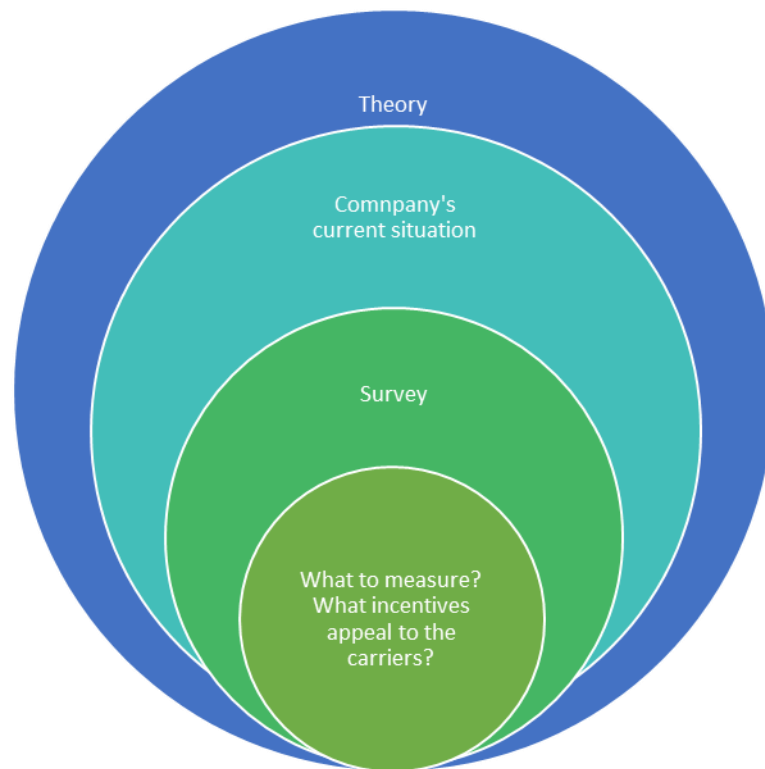


Figure 1. Research framework

The survey conducted was based on the theory of the thesis and on the examination of the company's current situation. Information obtained in each section was utilised to find solutions to the questions posed: What to measure to enable positive recognition? What Incentives appeal to the carriers?

## 2.4 Survey methodology

The surveys were conducted in September to avoid the summer holiday season in order to ensure a higher answer rate. Surveys were carried out as online surveys with Survey Monkey's software. Online surveys are accessible and all data is collected in one location. The survey consisted of statements with Likert scale answer options (closed questions) and open questions. Closed questions provide data that can be easily analysed when the number of respondents is large. Open questions should be used where a simple predetermined answer is not suitable. Surveys were carried out in English and Finnish.

Development of a survey starts with defining its purpose, research questions and possible hypothesis. Then suitable scale and response format are chosen and items (questions, statements) are generated. Conducting a pilot before the actual survey helps identify faulty items which are then removed. Once the survey is completed, the data is analysed. The analysis methods depend on the scale and response formats chosen, and on the research questions and expected outcomes. (Jones & Rattray, 2007.)

After defining what is to be measured and why, and with what type of a scale, the creator(s) must create the items. In order to obtain useful data items have to be relevant in regards to research questions, theory, and target audience. Response format should be suitable for the item, and a survey can contain more than one format, for example five-choice formats and open questions. Open questions provide more in-depth information but these responses are complex to analyse and thus only a few open questions should be included. Items should be created so that there are several items measuring one topic. This reduces bias and measurement error. Order of the items may distort responses and increase response bias. Wording should be carefully thought-out and both positively and negatively worded items should be included to avoid certain answers being given due to expectation. (Jones & Rattray, 2007, pp. 236, 240.)

#### 2.4.1 Likert-type or frequency scale

Likert-type or frequency scale is an ordered scale from which a respondent chooses the option that best corresponds to his/her view from five to seven options. Likert scales and Likert-type scales are versatile. The options represent the level of agreement, approval, belief etc. to a statement and are assigned a numerical value to enable comparison. A common example of a Likert scale measures agreement: Strongly disagree, Disagree, Neutral, Agree, and Strongly agree. Such scales are suitable for finding out about people's beliefs, experiences and behaviour. (McLeod, 2009.)

The scale can be built so that a neutral option is not presented, forcing respondents to choose a clear opinion. This approach should be used with caution as it may irritate respondents and result in a higher non-response bias (Jones & Rattray, 2007, p. 236). A neutral option is also useful for indicating insignificance of certain topics.

### 2.4.2 Response format chosen

For this study, data was collected with a survey consisting of Likert-type scales with five- and seven-choice formats and open questions. Fixed choice questions provide data that is comparable and effortless to analyse. Open questions were used where a simple predetermined answer was not suitable and explanatory answers were required. Surveys were carried out as online surveys with Survey Monkey's software. Online surveys are accessible and all data is collected in one location. Surveys were carried out in English and Finnish.

## 3 THEORY

Although the main objective of this thesis is to modify the carrier performance measurement system to enable recognition of positive performance, a suggestive scheme for an incentive system is also introduced as measuring positive performance in itself is not enough to motivate suppliers to continuously exceed expectations. To support incentivisation and measurement of positive performance, supplier relationships must be appropriately managed. Regular and sufficient feedback and communication are vital components in supplier motivation.

Theories related to supplier incentivisation and supplier management are studied. Majority of existing theories and studies address materials procurement, and practical information on incentivisation is construction industry emphasised. Available information is adapted to suit the needs of procuring transportation services.

### 3.1 Supplier incentivisation

In this study, supplier incentivisation includes recognition of good performance, awarding and incentive systems, and any other practice used to award good performance and to motivate for even better performance. Modeland et al. (2008, p. 2) state that such actions are needed to improve total performance of supply chains as suppliers are becoming growingly important. Van Weele (2010, p. 244) also names recognition as a prerequisite to motivate suppliers to perform even better. Supplier recognition appeals to high performing suppliers, which seek to enhance sales with case studies, references and recognition awards provided by a buyer (Post-contract appraisal, 2010). A key feature of incentivisation is that it benefits the buyer, supplier and even

the end customer, so it helps companies keep the best suppliers and motivates all to perform even better. Incentivisation improves the performance of buyer and supplier, leading to decreased costs, shorter lead times, increased sales, and increased safety and quality (Modeland et al., 2006, p.4).

The objectives of the buying company must be thoroughly investigated in order to obtain maximum benefits. Also, incentives must be truly beneficial and desirable for the suppliers. Thus discussion with the suppliers is needed before deciding on the incentives. Incentives do not necessarily have to be financial, but a combination of both financial and nonfinancial should be used when possible as suppliers' efforts to improve their business may be costly. CIPS (2006, p. 4) presents that incentivisation involves discussing and agreeing on targets, achieving of which the supplier will receive an agreed upon reward. Note that the suppliers should only be awarded for exceeding expectations, not for fulfilling the minimum requirements.

Negative incentivisation is used to discourage unwanted behaviour with penalties. The research material indicates that negative and positive incentives should be used simultaneously to gain best results.

CIPS (2006) names a few considerations when planning on incentivising suppliers: cultural compatibility, acceptance and understanding throughout organisation, and financial ability. Cost of incentivisation must be examined and money spent on incentivisation should be limited.

### 3.1.1 Motivational theories

As incentivisation is basically the motivation of suppliers, the process is more likely to succeed when people managing it are familiar with at least the basics of applicable motivational theories. Motivational theories are not only beneficial for managing a company's personnel, but for managing external resources such as suppliers as well.

Classical theories assume that the best incentives are monetary and that work should be broken down into smaller divisions to reduce time, or even motions (College of DuPage, 1998). These theories are not suitable for supply chain management and are also ineffective for motivating workers.

Behavioural theories emerged once Elton Mayo stated that motivating workers was more complex than offering more salary for well executed work (College of DuPage, 1998). Douglas McGregor created his famous theories based on the classical and behavioural theories. Theory X represents the classical, authoritarian management style that assumes workers to require continuous and strict supervision with clear instructions and jobs in order for the work to be done. The main motive of theory X is that people evade work by nature. Theory Y principles are opposite; people willingly work in order to satisfy their higher level needs. Management's objective is to support the workers and to motivate them to embrace the company's goals as their own. Theory Y claims that people do not need external direction or control, but desire independence and challenges. (The Economist, 2008.)

Chris Argyris presented the theory of mature and immature person. Mature workers crave for more independence, self-control and variety. Failing to fulfil these needs works as negative incentive and causes inability to act or even think independently. Both Argyris and McGregor addressed that people want to be involved and need to have the possibility to affect e.g. decision making. (College of DuPage, 1998.)

Frederick Herzberg presented the idea that people are motivated to perform better when motivators such as achievement, recognition, responsibility and advancement are offered. He also said that feedback and possibility to inspect one's own work is important. (College of DuPage, 1998.)

The behavioralist theories have been criticised for lack of proof that their techniques actually increase productivity. Nevertheless, they have not decreased it as purely authoritarian management often does. (College of DuPage, 1998.)

In the case of suppliers being the "workers", we can assume that they wish to involve, interact and develop together with the buying company as the positive involvement reflects on the supplying company. Suppliers should be treated, not as subordinates, but as equals. Respect and recognition are important.

In addition to classical and behavioural motivational theories, there are those that can be used parallel with any other theory. The main principles of expectancy theory are that a motivator must be something that the person truly wants and that the person



must believe on his/her changes of fulfilling the requirements to obtain what is offered. (College of DuPage, 1998.)

The theory of intrinsic and extrinsic motivation was formed by Madeline Hunter. She states that only extrinsic factors can be used to motivate. Extrinsic motivators are level of concern, feedback, success, interest, and feeling tone. Level of concern means that a person is motivated to act according to expectations and requirements. Feedback must be accurate and frequent and presented at appropriate times. Knowing ones performance motivates him/her to improve it even more. Success is linked to feedback, as a person must now he/she is doing well to feel successful. Hunter states that knowing of bad performance would decrease motivation. In the case of suppliers, especially if incentives are offered, it might be expected that this would not happen for the suppliers' profitability is affected by their performance. Negative feedback should be presented with suggestions on how or where to improve. Boredom decreases motivation and thus interest is one motivator. Challenges, work environment and variation make work more interesting. Feeling tone relates to communication and it can be positive, negative or neutral. Positive tone is achieved with polite and supportive communication, negative tone with blunt and intimidating, and neutral tone with purely factual communication. Positive communication leads to best results. (College of DuPage, 1998.)

The lack of interaction, trust and motivation lead to use of excess resources in management and to loss of potential. This applies to internal and external resources. Behavioural techniques should be used when motivating suppliers. Which incentives will provide best results is found out through the surveys and by examining existing, beneficial supplier incentive systems.

### 3.1.2 Existing supplier incentive systems

Several companies are successfully implementing supplier incentive systems with various objectives. Incentives are created to e.g. enhance environmental and social sustainability, to support total quality management or to simply decrease costs. Regardless of the main emphasis, incentive systems always aim to improve the total performance of the supply chain. Some of the existing incentive systems are introduced in this section.

Lately, the subject has been on the financial news as Pentagon announced that during the coming year the entire Defence Department will start ranking their suppliers and publishing names of the best ones. The program was first piloted by the Navy Department under the name *Superior Supplier Incentive Program* and was applied to materials suppliers. (Clarks, 2014.)

According to Sean Stackley (2014), Assistant Secretary of the Navy Research, Development and Acquisition, recognising the company's best suppliers and enhancing relationships with those suppliers is industry best practice. The accuracy of this statement is easily confirmed by studying supply management related articles, studies, and books published in the recent years which show that procurement is evolving towards strategic partnerships, supplier development and reduction of supplier base, or even single-sourcing.

In a video published on 13<sup>th</sup> of June 2014, Undersecretary for Acquisition, Technology and Logistics Frank Kendall, and Sean Stackley brief the Pentagon Press Corps about the pilot program. Kendall says that recognising the best performing suppliers is one of the tools for continuously improving procurement. He states that incentives do work, but they are not utilized in contracts as effectively and as often as possible. He believes that promoting effective competition among suppliers improves their performance as well. Also, more freedom should be given for procurement personnel when determining which contract type to choose, as it enables more context sensitive contracting. (Kendall, 2014.)

Competition is not an actual incentive, but it motivates suppliers to perform even better in fear of losing business. Kendall (2014) believes that artificially creating a competitive environment improves performance. It is about discreetly indicating that the buyer may be considering using other suppliers. However, competition cannot always be created; some acquisitions have only one possible supplier.

In order to recognise the best performing suppliers, an objective and clear measurement system must be established. Managing the measurement system should be relatively simple. The companies selected for the Superior Supplier Incentive Program's pilot were chosen from the suppliers amounting to 85 percent of the procurement spent. From these companies, 30 were ranked as the top performers based on a "score" determined by the measurement, and these 30 were still broken into three tiers. The

Navy studied the contracts together with top suppliers in order to identify factors that are causing unnecessary costs into the suppliers' performance in reference to their overall performance. All suppliers are asked to give feedback about the pilot program. (Stackley, 2014.)

Nike uses incentives for improving supply chain sustainability. Rating system *Manufacturing Index*, or *MI*, was created to measure supplier performance regarding costs, quality, delivery and sustainability. Each of the four areas are equally weighted. Suppliers receive a score from 0 to 100 and based on the score they are divided into 5 categories: red, yellow, bronze, silver or gold. Reaching bronze, silver and gold categories entitle suppliers for incentives such as priority consideration for orders and the possibility to access Nike leadership and training. (Porteus & Rammohan, 2013.)

For the suppliers whose performance does not qualify them for the acceptable levels, Nike requires third-party audits and uses reduction of business or even termination of collaboration as negative incentives. Before such actions are taken, however, a supplier is instructed to amend its operation within a given time period. If the supplier is still failing to meet the requirements, situation is acted upon as suitable given the failures severity. (Porteus & Rammohan, 2013.)

MI is not applied for all suppliers, but for those of relative strategic importance. It is still too early to evaluate the impacts of Nike's efforts to improve sustainability with MI, but the company is confident that results will be good. MI has already benefited Nike and its suppliers by clarifying what is expected as regards to performance. (Porteus & Rammohan, 2013.)

Susan Modeland (2008, p. 4), currently an Enterprise Supply Chain Manager at Goodrich, introduced Goodrich Engine Components', GEC, supplier development strategies in the 93<sup>rd</sup> Annual International Supply Management Conference in 2008. Possibility for increased business share, becoming a strategic partner, and awards presented in supplier conferences were all used to motivate suppliers. The better performers are offered work that a poorly performing supplier has handled earlier. At the time of the conference, GEC had started to arrange two separate conferences, one for the well performing and one for the poor performing suppliers. Award ceremonies, training, sharing of strategic information and networking were offered in the two day conference attended by the top performers. The suppliers that did not achieve expecta-

tions were invited to a one-day event emphasising problem solving, studying of score-cards and GEC clarifying and stressing their expectations. Modeland said that the one-day event gives the bad performers a good understanding of what is needed and how it can be achieved.

Vermeer Corporation's supplier recognition program was discussed alongside GEC's. The suppliers are evaluated based on the added value they provide. Vermeer implements TCO, abbreviated from total cost of ownership, strategy in this evaluation. Two new positions, Supplier Development Specialist and Supply Chain Continuous Improvement Manager, had been created to focus solely on supplier development. The tasks included developing supplier measurement, determining objectives, and providing feedback and resources for the suppliers to improve their processes. The recognition program at that time included training, certification, and offering consultants for use. Vermeer also organises a yearly meeting with the suppliers. The meeting aims to provide more publicity for the top tier suppliers and to share strategic information with them. Vermeer sees increase of business and participation as the best reward for suppliers. (Modeland et al., 2008, p. 5-6.)

Finally Modeland et al. (2008, p. 6) list four factors that contribute to an incentive systems success:

1. Well established objectives, processes and policies which are published for the suppliers,
2. Selection of key suppliers and offering them support,
3. Meaningful recognition for suppliers, and
4. Involvement of senior officers.

In the research material, reciprocal communication and frequent feedback is established as a prerequisite for successfully implementing incentivisation.

### 3.1.3 Incentives

Modeland et al. (2008, p. 2) see motivation as any tool or procedure that ignites the suppliers to strive to achieve a goal set by the buying company, thus improving their performance along with the buyers. Such motivators, or incentives, include formal recognition, increase of business, and also the competitive feel created when suppliers notice that a competitor is performing better and gaining (public) recognition because of it.

Examples of negative incentivisation are easy to find: pollution fees, parking tickets, and in the case of suppliers – loss of business. Negative and positive incentivisation yield different results depending on the audience it is implemented to. Young people respond better to negative, whereas older people (35+) to positive incentives, although both presume themselves to be more motivated by positive incentives (Dahr & Goldsmith, 2014).

Certain incentives recur in the programs introduced in the previous section: increase or loss of business, training and support, and public recognition. The negative and positive incentives used are mutually supportive; poorly performing suppliers lose business that is offered for the ones exceeding expectations. From motivational theories we can see that the possibility to influence and involve are also effective motivators.

Incentives must be tailored and carefully chosen to best suit the needs and characteristics of a company and its suppliers. Incentives are also a great way to emphasize the buying company's values and to commit suppliers to these values.

## 3.2 Supplier management

Traditional purchasing and procurement relies on the assumption of several equal suppliers existing for each product or service, between which total competition exists. In reality competition is usually limited and a higher level of collaboration with suppliers is required to ensure successful procurement. (Iloranta & Pajunen-Muhonen, 2012.)

The single most affective determinant in choosing the supplier has traditionally been acquisition price. Acquisition price is a valid criterion for simple, common products that are easy to purchase but investments, outsourcing, and purchasing of more complex strategic products and services require wider criteria and professional procurement personnel. (Iloranta & Pajunen-Muhonen, 2012.)

These changes have evolved procurement from simple operational purchasing to a core operation of strategic importance. This transformation has emphasized the importance of suppliers and made companies realise the potential for obtaining more value by managing them as external resources. Suppliers are contributing even more to companies' performance as they are more focused on core competences and outsourcing supportive operations (Ellram & Krause, 1997, p. 39). Supplier management includes such methods as supplier development, supplier performance management and contract management.

### 3.2.1 Contract management

Contract (life cycle) management consist of all activities related to creation, execution and analysis of contracts. These activities take place both before and after awarding suppliers with contracts and aim to improve financial and operational performance and reduce risk. If pre-award activities are carefully executed, there will be need for less effort post-award. (Elsey, 2007, p. 3.)

Contract management defines i.e. the level and style of communication, which varies depending on the importance of the supplier. Matrices or some other form of differentiation should be done between contracts/suppliers. Setting performance measurement and reporting procedures and responsibilities are also contract management activities. Formally defining the requirements of the buying company is needed in order to conduct effective performance measurement. These requirements serve as a specification for suppliers and determine the evaluation and measurement metrics, and prequalification criterion. Elsey (2007, p. 11-12) points out that the metrics used to measure performance must be clear and beneficial, offer practical, objective and accurate information of the suppliers performance as well as define the needs of the buying company. They should measure any added value provided by suppliers, performance improvement and responsiveness among other things. Performance requirements and measurement form the foundation of contract management.

Post-award activities launch once contracts are signed. Elsey (2007, p. 26) divides post-award activities to three categories: relationship management, service delivery management and contract administration. An open and interactive relationship should be maintained and developed as necessary throughout the contract period. Service delivery management includes activities that monitor achievement of objectives and fulfilment of agreements, such as performance measurement. Contract administration covers the formal activities required in managing the contract. Such activities include managing contract changes and cost monitoring.

Automating and standardising contract management within companies produces more effective processes. Successful contract management ensures selection of most suitable suppliers, satisfactory service levels, achievement of agreed financial and operational targets, required level of communication, and that both parties truly understand the contents of the contract which leads to fewer disputes. (Elsey, 2007, p. 3) Studies have shown that companies implementing successful contract management are gaining financial benefits and have competitive advantage (Rendon, 2007, p. 1).

### 3.2.2 Supplier development

Collaborating to improve suppliers' performance and capabilities in order to achieve predetermined goals develops suppliers to better respond to the buying company's needs. The activities implemented depend on the strategic importance of the supplier, the buying company's resources and the permanence (short-term/long-term) of supply needs. Ellram and Krause (1997, pp. 38, 40) list some supplier development activities: introducing competition, demanding better performance, recognition and awards, promise of benefits to be gained, training and education of suppliers' personnel, and direct investments. The said study was conducted from the perception of buying companies.

Supplier development cannot be done without mutual agreement and collaboration. In order to succeed in implementation of a development program the buying company has to be of high enough importance to the supplier and it has to be deemed as credible. Effective communication is also vital for getting suppliers to participate in development efforts. (Ellram & Krause, 1997, p. 40)

Communication should include feedback and recognition of good performance to motivate suppliers to continuously improve (Van Weele, 2010, p. 244). Another major factor contributing to successful supplier development is proactiveness of the buying company in solving and preventing supply problems. The successful companies also focus more on long-term activities. (Ellram & Krause, 1997, p. 46)

Ellram and Krause (1997, p. 43) found in their study that companies successfully implementing supplier development have obtained better performance from their suppliers than the companies with less successful implementation of development activities. Each company had experienced improvement in incoming defects, on-time deliveries, order cycle time and orders received complete, from prior to implementing supplier development to the date of answering the survey. The ones that had been satisfied with the outcomes of supplier development had significantly less defects and higher percentage of orders received complete. A probable cause for why these companies were more successful in supplier development is the buying company's size in regards to gross annual sales; more financial resources available for such activities.

In their study Ellram and Krause (1997, pp. 47-49) investigated which types of activities companies use. Their survey included 14 activities covering competition, evaluation, awarding, and direct involvement (i.e. site visits, training). They also included questions regarding the level and nature of communication. The results show that the successful companies have a more interactive and collaborative relationship with their suppliers, higher emphasis on evaluation and providing feedback, their information sharing is more common, overall communication is considered more important, and they use more time and resources to develop suppliers and supplier relationships.

### 3.2.3 Supplier performance measurement

Performance measurement and feedback are proactive tools that, together with incentives, encourage suppliers to maintain and improve their performance (Else, 2007, p. 28). Van Weele (2010, p. 43) emphasizes the importance of recording supplier performance. Performance records need to be reported to managers of both the buying company and the supplier. Measuring and recording supplier performance enables trimming of company's supplier base by highlighting the top and bottom performers. This information is utilised in future contracting and in continuously improving supplier rating system. Recording of supplier performance is crucial for selecting the cor-



rect qualification criteria and for forming the list of approved suppliers (the good performers). Measuring supplier performance and providing feedback is crucial to successful contract management, risk management, and supplier development (Else, 2007, p. 8, 27, 31).

Van Weele (2010, p. 43) agrees that in addition to the normal quality and delivery performance, other factors should be recorded, such as competitiveness and innovativeness. This provides comprehensive understanding of each supplier's capabilities and commitment. Bowersox et al. (2007, p. 24) add flexibility, frequency of malfunction and recovery time to the list of logistics service performance indicators. Malfunctions are service failures such as damaged goods or insufficient documentation. Recovery time indicates how effectively LSP handles occurred malfunctions.

Measuring logistics service performance and providing direct feedback enable both the supplier and buyer to assess overall performance. Measurement system contributes to higher service reliability and it supports continuous improvement. When LSP's commit to continuous improvement, delivered service will achieve and exceed expectations. (Bowersox et al, 2007, p. 24.)

Performance information provided by customers is vital for LSP's to maintain realistic and comprehensive performance measurement. Inadequate reporting of malfunctions and their causes, lack of positive feedback, and not communicating desire for improvement or need for additional services leads to LSP's having deceptive perception of performance as well as the customers desires.

Metrics used for measuring service supplier performance, KPI's, should cover all incidents the buying company wishes to receive and avoid, as these agreed upon indicators greatly affect its suppliers' performance (Van Weele, 2010, p. 100). The effort put into developing the KPI's pays off by providing both parties with a comprehensive list of expectations and objectives as well as effectively eliminating suppliers in the prequalification stage.

#### 4 CURRENT SITUATION OF COMPANY X

Company X already has a well-designed performance measurement system. In an operative instruction it is stated that service provided by LSP's and carriers is of the

highest importance for they represent Company X at its customers. There is room for improvement though. Such systems should generally be periodically reviewed to make sure they align with changes in the market and in company strategies. Company X's current logistics service supplier relationship management strategies are examined and assessed in this section with high emphasis on carriers in order to reveal any existing problems.

#### 4.1 Logistics service procurement

Company X buys intermediate warehousing and transportation services from LSP's. Warehousing on site is mostly managed by the company's own personnel. Company X has decided to keep its base carriers large to enable higher capacity and to maintain competition between suppliers to ensure competitive prices. Competition, however, is absent in certain routes which results in lower service levels due to lack of motivation. Positive recognition and rewarding would motivate even those suppliers that are not pushed to perform better by competitive pressure. (Distribution specialist, 23.7.2014.)

Prequalification of carriers is conducted by an 11 page questionnaire that covers e.g. quality and safety issues and carrier's performance management. A score is calculated based on the answers provided and if a certain score is reached, the carrier is deemed qualified. A library of carriers and their answers is maintained. Any approved carriers conform to ISO9001 quality standard and are recommended to adapt the CEFIC Safety and Quality Assessment System (SQAS). (Distribution specialist, 16.9.2014.)

Contracts are awarded through a tendering process. The process starts with defining the strategy, i.e. goals, targets, and approach. Then prequalified carriers are invited for the tender and asked to submit their offer by a certain date. Then for prices and expectations for example are negotiated together with shortlisted carriers. After the negotiations, a deadline for second offers is set. If a third round is not organised after the second, then contracts are awarded. The process takes approximately two months from preparation to finalisation. Tendering is conducted per region; all outbound volume from each production plant and regional distribution centres (RDC). (Distribution manager A, 13.9.2014.)

Any new carriers are invited to a meeting in which all the HSE issues are reviewed together. Carrier's representatives may be unable to attend such meeting in which case HSE issues are reviewed remotely. (Distribution specialist, 16.9.2014.)

The frequency of tenders and length of contract periods varies between regions, e.g. carrier market in Western and Northern Europe is quite stable and therefore contract periods are longer and tenders are arranged less frequently than in Russia where the market is less stable. The frequency and contract periods are defined when constructing the tendering strategies. (Distribution specialist, 16.9.2014.)

To support the process, the tendering party examines the performance history of previously contracted carriers. This information is obtained from data collected with the CPRS and information is also requested from related personnel. Due to the fact that CPRS only records performance failures and there is no system for recording positive performance, the tendering party has to rely on performance instances the personnel can recall. Such a system is faulty, as human memory capacity is limited. As a result, the tendering party makes its decisions based on incomplete perception of the carriers' capabilities. (Distribution specialist, 23.7.2014.)

## 4.2 Frame transport contract

The general frame is identical for packed and bulk transported by rail or road. Exhibits to contracts and appendices differ however for requirements for transportation vehicles and equipment and for cleaning of said are different, and the loading of packed and bulk is significantly different.

Failure to perform on-time in less than 98.5 % of deliveries for two consecutive months allows Company X to terminate contract. The contract exhibit enables Company X to terminate the exhibit if carrier has a performance score between 80 to 90 % for three consecutive months and fails to increase the score above 90 %, or if a carrier scores under 80 % for two consecutive months. However this penalty is seldom executed for usually such unwillingness to comply with requirements is due to lack of competition. A seemingly poor performing carrier might also present outstanding performance in ways that are not measured by the current system. (Distribution specialist, 23.7.2014.)

Carriers are expected to use a loading booking calendar for booking loading times. It is an IT application which communicates with the company's ERP system. If required, carriers are expected to arrive for loading the following day when transport is booked by Company X before 14.00. Loading hours are site specific and are defined per loading point. Delivery is expected to take place by 16.00 customer's time or by a specified time. Carriers have one hour to notify Company X if they are unable to fulfil one or more of the booking instructions requisitions. If no notification is received, carrier is bound by the booking instruction.

The contract includes estimated annual volumes by country which carriers agree to deliver. Estimated volumes do not bind Company X. Expected transit times are also defined per loading location and delivery country. Carriers are expected to perform the delivery by a specified date or within transit times. Loading instructions are enclosed to the contract as well. For packed products most performance deviations are associated with loading process.

The frame transport contract includes a clause which stipulates carriers to conduct business with Company X in compliance with the Company X ethics policy. Ethical performance could also be monitored as incentivisation is often used for validating ethical and economical requirements.

#### 4.3 Carrier performance monitoring

Company X uses CPRS to monitor and rank its carriers based on their performance. One major flaw of the current system, and the main reason for this thesis work, is that there is no procedure for measuring and recording positive performance. Measuring positive performance is more challenging as defining the metrics to be used and setting the limits of what can be expected and which performance incidents are exceeding expectations must be objective.

A cohesive and adaptable system could benefit the company by ensuring that all sites are managing carriers according to the same strategies, and by making the evaluation of carriers less dependent on location. This allows comparison of logistics service procurements effectiveness on location and corporate level. System should be adaptable for measuring of suppliers for packed and bulk as it would enhance the benefits of measurement even further (Distribution manager A, 13.9.2014).

The CPRS process requires performance review meetings with poor performing LSP's. The objective is to agree upon corrective actions and implementation schedule. Company X monitors progress of the implementation via mail or by organising a physical follow up meeting.

Distribution specialist (16.9.2014) monitors carriers' performance weekly by examining recorded data. A report of preceding week's deviations is created every Monday. The aim is to keep track of severe incidents and to reveal frequent occurrence of minor incidents. Carriers are contacted if the need arises. In the case of FCA deliveries Company X reports any incidents to the customer, but does not interfere with the following actions.

The Distribution team compiles a monthly performance package which includes CPRS results, on-time performance, and claims towards distribution. Remarks and actions affecting carrier performance are introduced. The report demonstrates significant differences in performance between bulk and packed: YTD performance score for carriers of bulk is over 95 %, of packed only 75.4 %. This comparison should not be interpreted in such a way that carriers of packed are actually performing that much worse, but that the CPRS scoring system is biased.

#### 4.3.1 Data collection and handling

Material Handling is responsible for notifying Distribution team of any deviations during loading process by entering corresponding codes to the ERP system. Severe safety incidents are to be reported to Distribution immediately via e-mail. Late arrivals for loading are reported by Customer Service using the ERP system. After loading carriers are responsible for reporting late deliveries in the loading booking calendar. Carriers are also required to report any other unplanned events during the transport. Any other deviations are reported to the Distribution team which then enters the corresponding code to the ERP system and contacts the responsible carrier. Customer claims are also recorded and maintained in the ERP system. Performance result is archived for five years and input data for one year.

The input data is used to create a monthly report which demonstrates and compares carriers separately for bulk and packed products in addition to forming the performance report sent to carriers. Said report is quite heavy and intended for informing

company's own personnel only but it contains explanatory information of the causes affecting performance. Monitoring carrier performance is executed by distribution team.

#### 4.3.2 Carrier Performance Rating System (CPRS)

The CPRS measures failures in supplier performance against the total number of deliveries per month. CPRS records deviations in five areas: loading performance, delivery performance, documents, safety, and information. Performance in each area is measured with "ECTA codes", codes that comply with ECTA-CEFIC guidelines for standardised coding of transport events. Deviations are recorded in the ERP system per reason code. As stated earlier, only failures to succeed in these areas are monitored as ECTA codes do not provide metrics for positive performance.

The system consists of 22 weighed reason codes with high emphasis on safety. Safety is a key aspect for Company X in all its operations. Codes' scores are from one to five. An overall score is calculated for the carrier based on numerical value of the codes recorded, and on the total number of deliveries per month.

Carriers are divided to three classes depending on quality score: A, B, and C. Class A being the highest requires no actions from the carrier, when again falling into classes B and C requires improvement of service level at different urgencies. All carriers start off with a score of 100 which is the highest receivable score. The formula used to calculate the score is:

$$\text{Quality score} = 100 - \frac{\text{sum of deviation values}}{\text{number of deliveries}} * 100$$

Quality score and resulting class together with a list of deviations is delivered to the carriers monthly and serve as performance feedback and follow-up. Performance is monitored at carrier level, site level, and total Company X level. Carriers are not informed of their performance in relation to other carriers.

Problems of this system are that it only records service failures, code description are somewhat impalpable, and it provides the carriers with merely an indication to im-

prove instead of suggesting how and what to improve. In addition, the system does not consider the differences between transport modes (Distribution manager A, 13.9.2014). For example two of the used codes are applicable for only packed products: inadequate load securing and climbing on load.

#### 4.3.3 Feedback

Carriers receive a follow-up report monthly as an Excel file. The report is divided into two: detail and summary report. The summary comprises of the performance score and class, detail report lists all the deviation codes recorded during the preceding month. The report is quite vague and uninformative, for example it may merely inform of a minor safety incident having occurred but not provide any detailed information. Carriers have expressed their desire to receive more detailed information about the incidents and to be notified of occurred incidents as soon as possible. The need for such improvement has been identified by Company X also. (Distribution specialist, 16.9.2014.)

In addition to increasing suppliers' motivation, measuring positive performance would make work more appealing for the personnel responsible for providing the suppliers' with feedback (Contracting manager, 29.7.2014; Distribution specialist, 23.7.2014). Customer service representatives (CSR) are mainly responsible for day-to-day communication with carriers.

#### 4.4 Haulier event

Company X has organised a meeting with its hauliers in the past and it was organised again in 2013. In earlier years the event has been attended by a large audience and they included arranged program such as a visit to a brewery. In 2013 due to cost-savings, only a few hauliers were invited and the event took place in Company X's premises. (Distribution specialist, 16.9.2014.)

The 2013 haulier event consisted of Company X sharing information, attendees performing group tasks, and of rewarding the best performing hauliers in different sections. Hauliers were awarded for e.g. overall best performance, best HSE performer, and a life time award was also given. Despite the favourable reception, haulier event is

not intended to be held annually because of cost-saving measures. (Distribution specialist, 16.9.2014.)

#### 4.5 Supplier relationships management

Company X has established procedures for managing supplier relationships but they are not always followed through due to lack of time and money. Some procedures are also very vaguely defined and do not provide actual guidelines or requirement. The description of following actions to be taken based on the performance classes as exhibited serve as a good example:

- Class A > 90%      Good performance. No action required
- Class B 80-90 %    The carrier is required to improve performance
- Class C < 80 %     The carrier is required to improve performance urgently

The descriptions do not provide Distribution team or carriers with clear instructions on the necessary measures.

Contracts include estimated annual volumes per loading site and destination. Monthly sales forecasts or volume estimations based on the forecasts are not communicated to carriers. The reliability of said forecasts varies between customers/regions and for this reason Company X has decided not to share such information. (Distribution specialist, 23.7.2014.)

Communication is largely one-way and reverse feedback is not requested. Meetings are arranged quite seldom and are usually only revoked by continuous poor performance (Distribution specialist, 16.9.2014). Communication with the drivers should be instant and clear. Expectations and deviation management should be more pragmatic as in more understanding of the carrier (Distribution manager A, 13.9.2014). Distribution specialist (16.9.2014) would increase the amount of meetings and enhance communication as well as prompt carriers to provide feedback on Company X's performance as a customer. The communication system is quite complex as many parties are involved which makes communication especially challenging when problems arise (Distribution manager B, 22.9.2014). Another challenge regarding communication is the variation of drivers' nationalities; different languages and levels of lingual skills create misunderstandings.



#### 4.6 Needs and expectations

A need to measure and communicate positive performance has arisen in all related departments. It is believed to increase carriers' performance and motivation, improve relationships, and enhance work satisfaction. Outstanding, or exceeding, performance is not measured by the current system and such information is not even systematically collected, although it would highly benefit the tendering parties by providing a comprehensive overview of a carrier's capacity, competencies and abilities.

Such exceeding performance regards flexibility, innovativeness, problem solving, and communication without asking for additional compensation (Distribution manager B, 22.9.2014). One substantial, and measurable, exhibition of flexibility is serving as back-up for Company X, for example being able to load more volume than required in the contract or ability to arrive for loading urgently (Distribution manager A, 13.9.2014; Distribution specialist, 16.9.2014). Problem solving might include exhibitions such as reaction time and claim handling, settlement of claims, and implementing corrective and/or preventive actions (Distribution manager A, 13.9.2014; Distribution specialist, 16.9.2014). Innovativeness includes actions such as offering new transport or logistics concepts for Company X, and communication concerns proactive communication and effective reporting of near miss incidents which helps improve Company X's or its customer's overall performance (Distribution manager B, 22.9.2014). Other "free" value-adding performance could also be recorded, e.g. the nature of communication (Distribution specialist, 16.9.2014) as well functioning and friendly communication contributes to a comfortable atmosphere in the relationship between carrier and Company X. Correct price policy should also be recognised, meaning that the carrier requests no commercial increases during contract period (Distribution manager B, 22.9.2014).

The chosen elements must be measurable and clear (Distribution manager A, 13.9.2014) and KPI's objective (Distribution specialist, 23.7.2014). A formal procedure and virtual location for recording performance incidents that do not conform to any KPI's, or reason codes, are also required. Such virtual location should be an appropriate place (Distribution specialist, 23.7.2014). Distribution manager B (22.9.2014) points out that the list of KPI's is already quite complex so it should not

be extended. He also confirms the presumption of reason codes being difficult to interpret as carriers understand them in different ways.

Appropriate awards could be increase of business, public recognition such as carrier rewards, being listed as a preferred supplier, contract extension, and small gifts for the drivers. Penalties could include loss of business, termination of contract, and financial sanctions (Distribution specialist, 16.9.2014; Distribution manager A, 13.9.2014; Distribution manager B, 22.9.2014). Distribution manager B (22.9.2014) emphasises the importance of implementing financial penalties if financial incentives are introduced. Currently Company X claims remuneration for severe incidents and customers' claims only, not for recurring minor incidents.

## 5 EMPIRICAL RESEARCH

Empirical evidence on the effects of incentivisation and measuring of positive performance were collected by creating a survey for chosen carriers. The surveys were conducted in English and Finnish with Survey Monkeys web software, see appendix 1 for the English survey.

The survey consisted of 27 questions that are based on the theoretical part of the thesis and on the examination of the company's current situation. Most questions were general statements concerning the effects of defined factors on motivation and performance which the respondents were asked to evaluate on a five-point Likert scale with options from Strongly Disagree to Strongly Agree. Positive and negative incentives were evaluated on a seven-point Likert scale with options from Highly Ineffective to Highly Effective. After these the respondents were asked of their experiences with other customers and of the use of incentivisation and positive performance measurement. Finally, the respondents were asked to evaluate Company X's measurement system and prompted for development and improvement ideas or needs. A choice was given to have these specific ideas presented in the respondent's own name. This supposedly increased the motivation to provide ideas as recognition is to be gained. All other answers were processed anonymously and any identifying information is known only to the conductor of the survey.

The survey was open from Tuesday 16<sup>th</sup> of September to Wednesday 24<sup>th</sup> of September. A total of 34 carrier representatives chosen by Company X were invited to submit

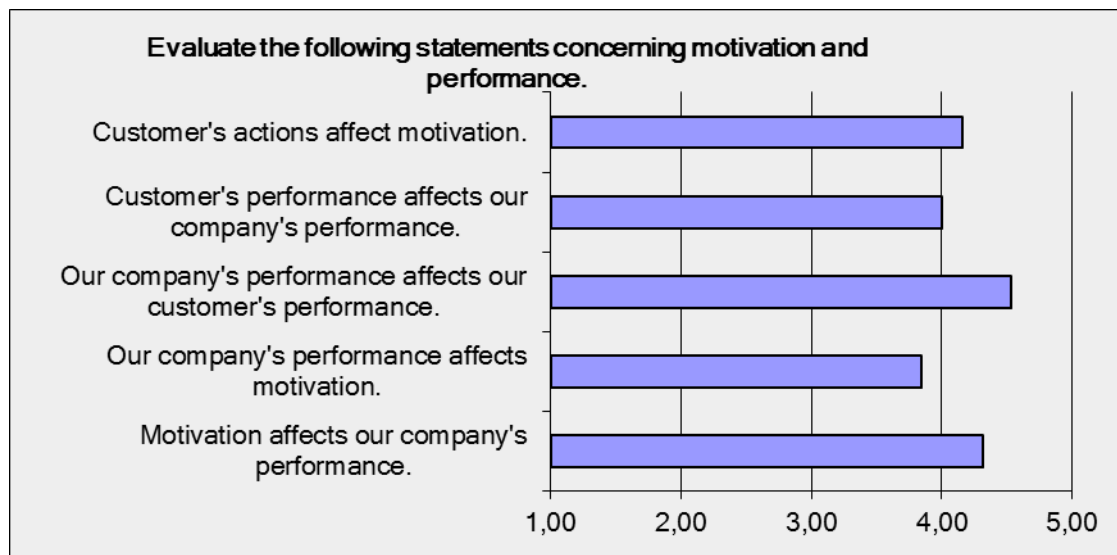
their answers, 30 to the English survey, four respondents to the Finnish survey. Prior to sending the survey invitations, Distribution specialist informed the chosen carriers of the upcoming survey. Two reminder emails were sent, on September 18<sup>th</sup> and 22<sup>nd</sup>. In total, 20 responses were submitted, 17 for the English and 3 for the Finnish survey. The response time varied between 20 minutes to 1 hour and 45 minutes. One respondent of the English survey was discarded in the analysing stage due to impartial completion. The survey results represent the beliefs, attitudes, and experiences of 19 respondents from several European countries.

## 5.1 Results

The statements are evaluated on a Likert scale with options from Strongly Disagree to Strongly Agree which are weighed from 1 to 5. The closer a statement's score is to five, the more respondents agree with the statements and the closer it is to one, the more they disagree with the statement.

The respondents were first asked to evaluate statements concerning their beliefs regarding the relation between motivation and performance. The results can be viewed in diagram 1.

Diagram 1. Motivation and performance

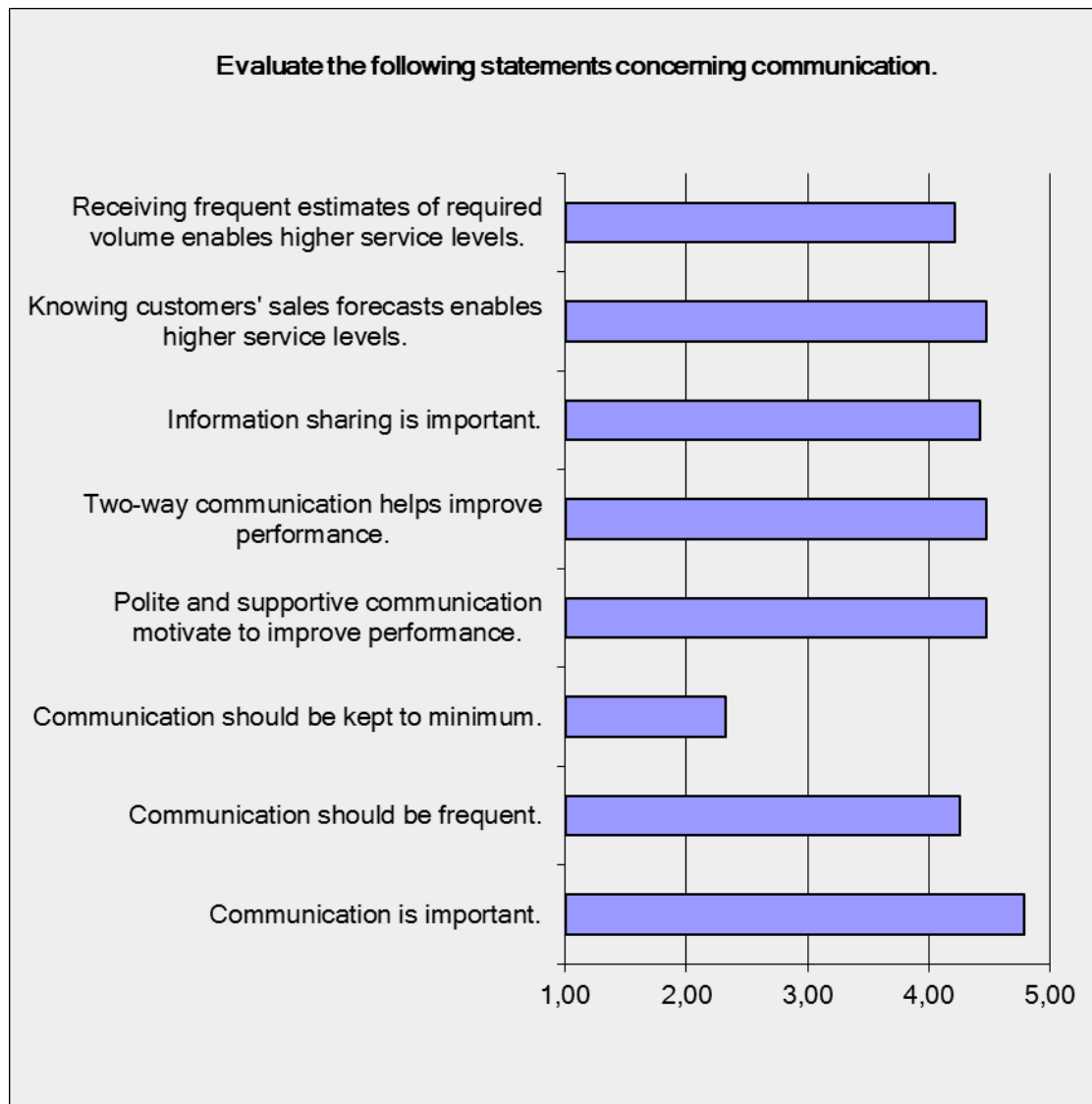


Three of the respondents felt that their company's performance is not affected by their customer's performance, but the majority agreed with said statement. The majority feels their motivation is affected by customer's actions. Generally, the carriers feel that motivation and performance are related.

#### 5.1.1 Communication and feedback

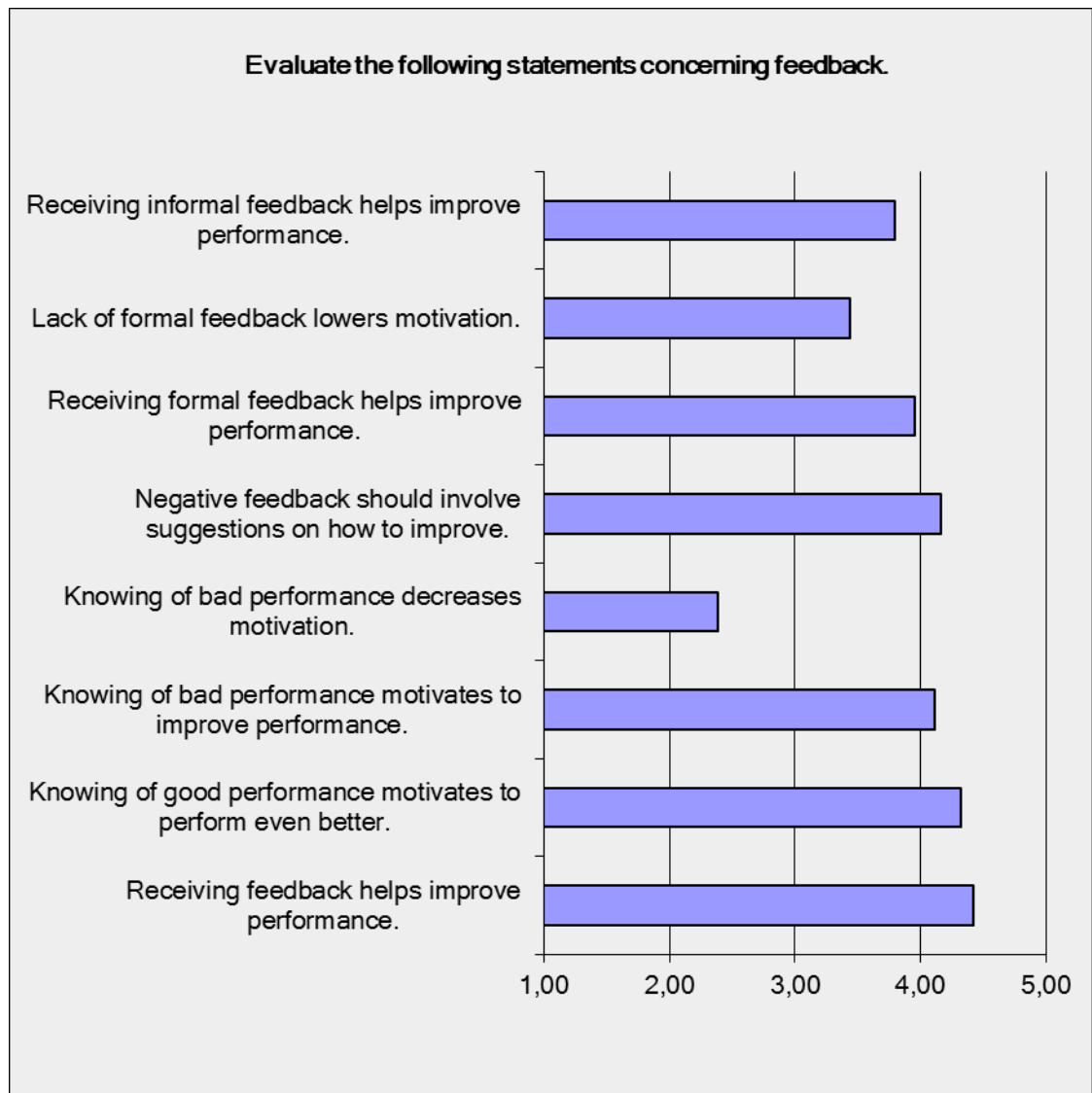
Respondents' attitudes concerning communication were quite uniform as becomes evident in diagram 2. Statement concerning frequency of communication caused some deviation, but the majority of respondents support frequent and reject minimal communication. Communication as a whole is deemed highly important amongst carriers. Each respondent agrees that knowing of the customer's sales forecasts helps carriers provide better service. Customers should hence share said information to proactively improve the overall performance of the supply chain.

Diagram 2. Communication



Carriers' opinions regarding feedback can be examined in diagram 3. Formal and informal feedback are deemed nearly as effective. A few carriers felt that the knowledge of bad performance decreases motivation although the majority feels the contrary. Positive and negative feedback alike is perceived as important and beneficial for improving performance although positive feedback is recognized as more effective.

Diagram 3. Feedback

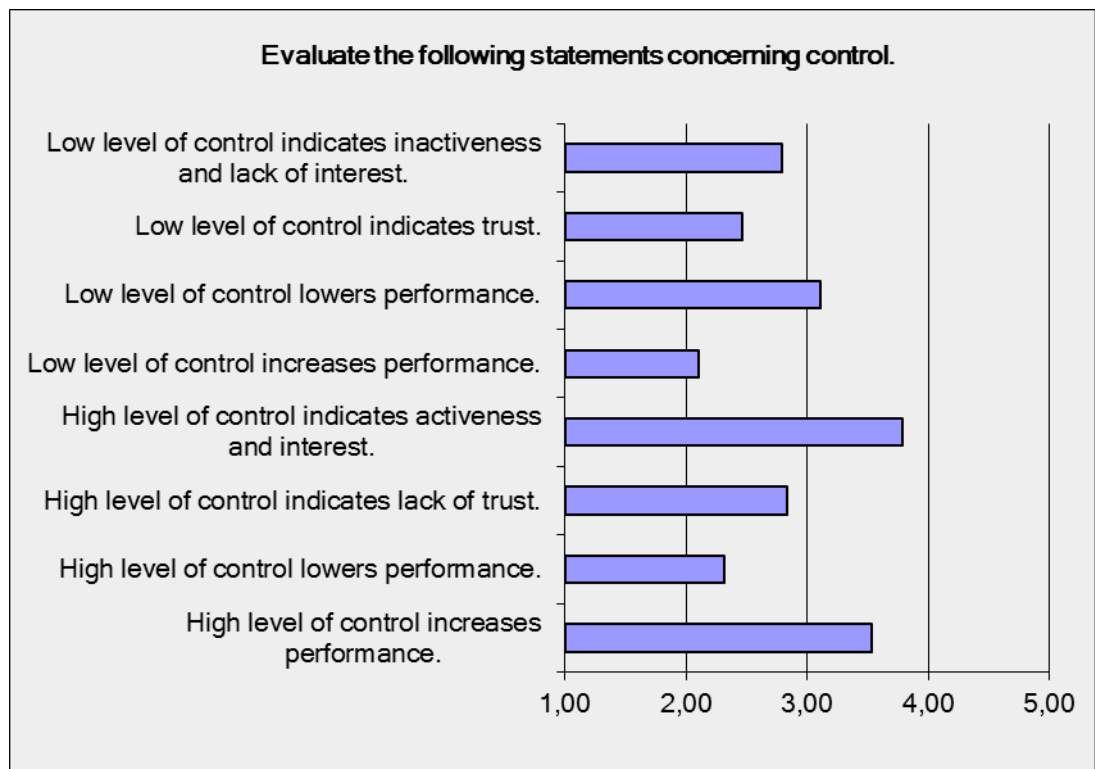


Carriers agree that negative feedback should be accompanied with instructions or suggestions on how to improve performance.

### 5.1.2 Control and involvement

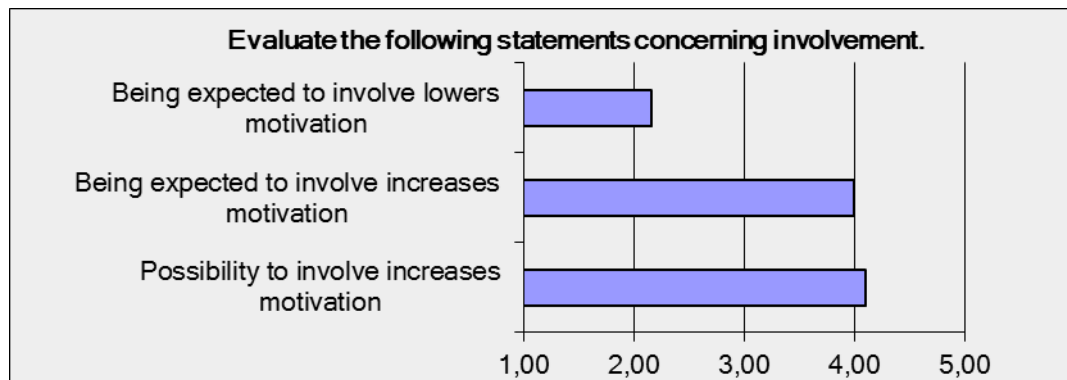
The statements concerning the level of control applied by the customer divided opinions, but generally higher level of control is considered to support performance and to demonstrate activeness and interest from the customer. Diagram 4 shows the results which support the assumption of carriers appreciating supplier development efforts.

Diagram 4. Control



The fifth question provides further proof of carriers' willingness to contribute to the development of supply chain effectiveness. As diagram 5 demonstrates, carriers are quite in agreement that giving the possibility to and being expected to involve increase motivation.

Diagram 5. Involvement



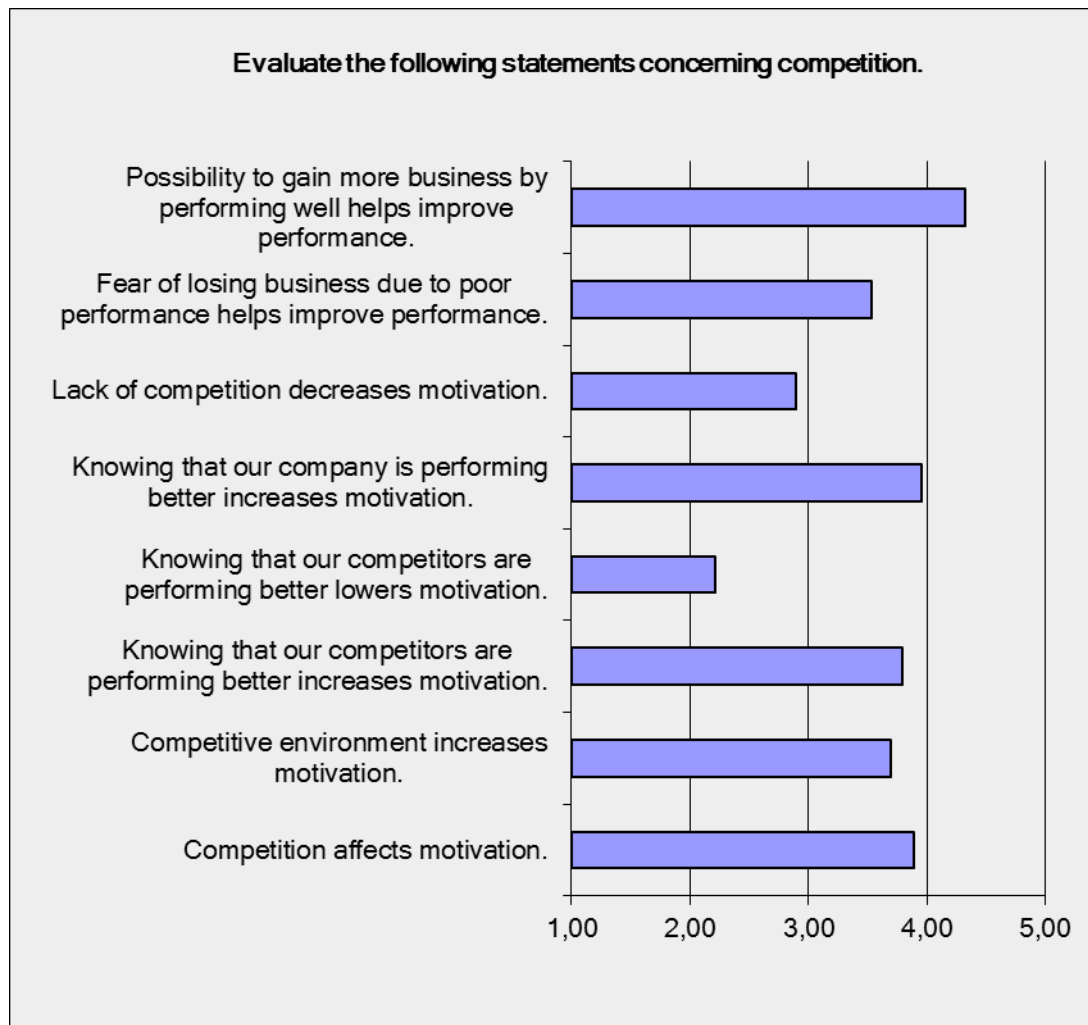
The fact that carriers believe to be motivated by being given the possibility to or by being expected to involve substantiate the assumptions created by theory. It also further justifies the inclusion of carriers in the development of relationship management operations.

### 5.1.3 Competition

The assumption is that suppliers are pressured to perform better in competitive environment. As shown in diagram 6, carriers agree that knowledge of their performance in relation to that of their competitors increases motivation.



Diagram 6. Competition

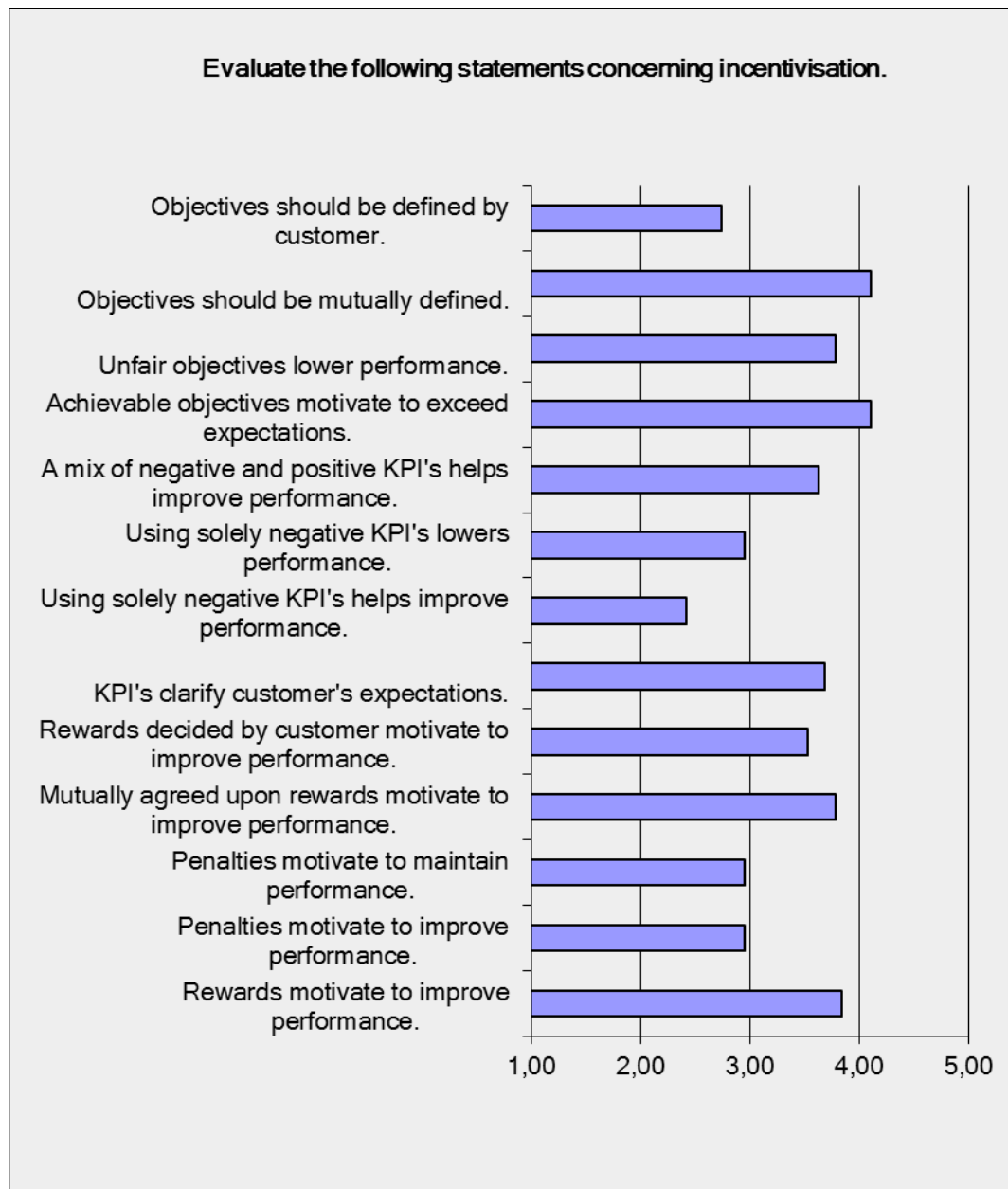


However, when comparing these results to the results of the statements concerning feedback, it can be noted that receiving positive feedback in general is thought to increase motivation more even without comparison. Nevertheless, competition is an important factor influencing carriers' motivation.

#### 5.1.4 Incentivisation

To examine carriers' opinions regarding incentivisation, the respondents evaluated statements concerning incentivisation and the effectiveness of listed positive and negative incentives.

Diagram 7. Incentivisation

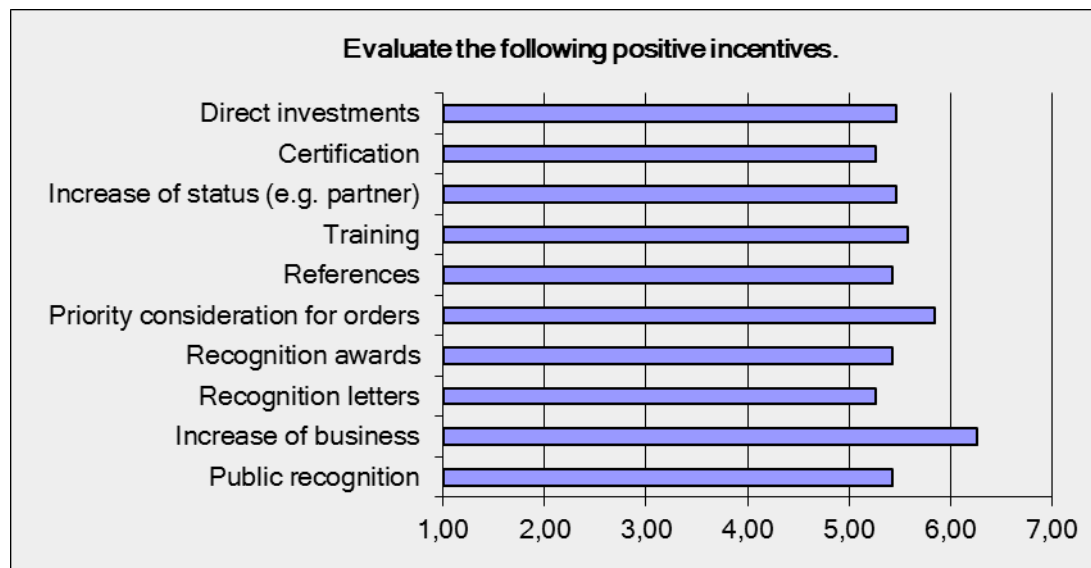


The hypothesis was that carriers' are more motivated to exceed contractual objectives if positive performance is measured to offer mutually defined rewards to best performing carriers. Diagram 7 shows that the hypothesis was generally realized although the statements caused some indecisiveness amongst respondents. Carriers agreed on rewards being more effective incentives than penalties, on measuring of solely negative performance being less motivating than measuring both positive and negative perfor-

mance, and on mutually defined achievable objectives and rewards being more motivating than if they were dictated by the customer without consulting the carriers for their expectations. One important observation is the agreement of KPI's clarifying customers' expectations.

The respondents were asked to evaluate the positive and negative incentives on a scale from one, highly ineffective, to seven, highly effective, based on their effectiveness as perceived by the carriers. Diagram 8 presents the respondents perception of the effectiveness of the positive incentives listed. Increase of business is significantly more appealing to the respondents than the other incentives. Priority consideration is also valued as highly motivating. Each incentive listed is nevertheless perceived as fairly effective and thus non-financial incentives can be expected to motivate carriers.

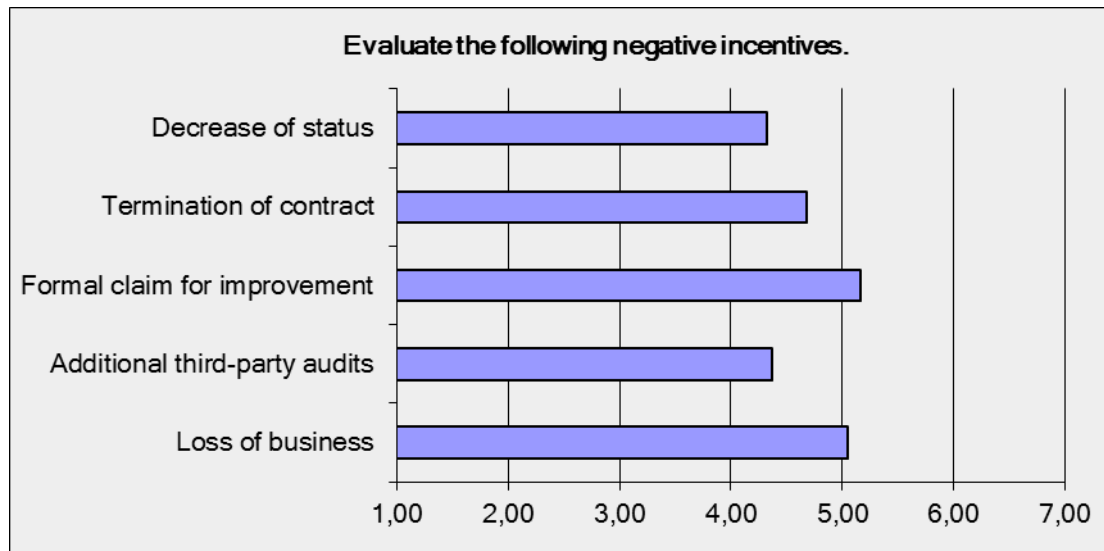
Diagram 8. Positive incentives



In addition to the prelisted incentives, respondents named other effective positive incentives: a formal “Premiun to Change” rule during tenders for best performers, price increase, financial compensation, and bonus payment system.

Respondents also evaluated the effectiveness of certain negative incentives. The results are presented in diagram 9.

Diagram 9. Negative incentives



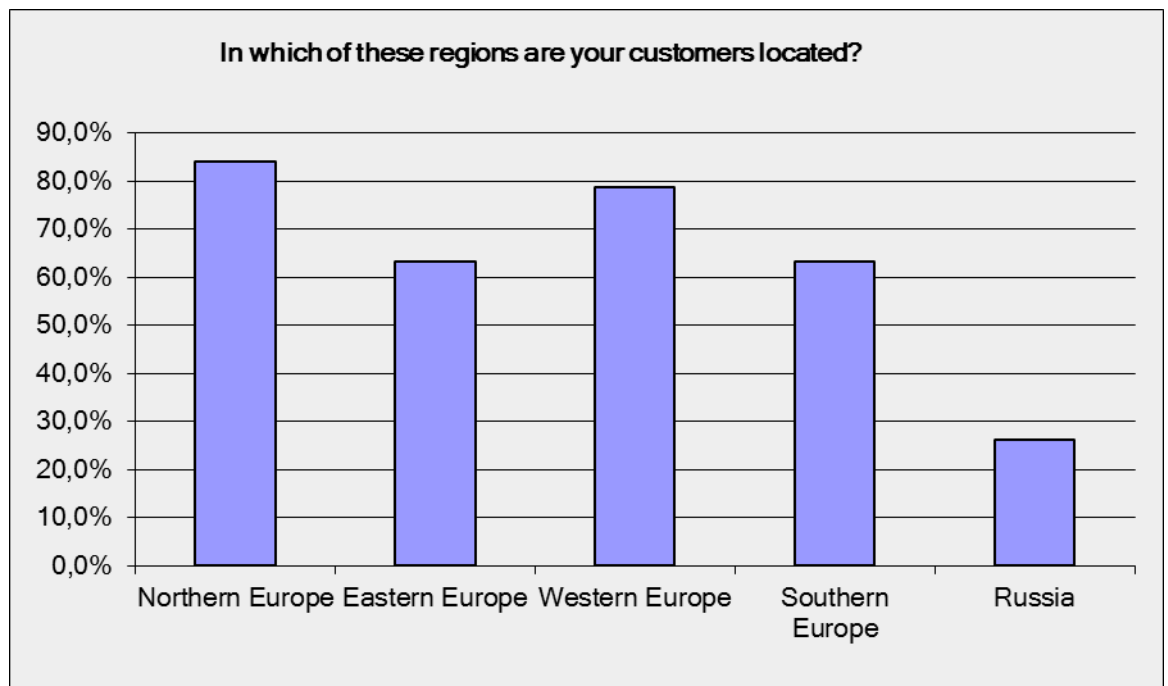
Surprisingly, a formal claim for improvement is experienced as more effective than loss of business. These should doubtless be used consecutively; inability to improve after a several formal claims results in loss of business. An additional negative incentive listed by carriers is malus payment which should be used simultaneously with bonus payment, thus forming a bonus malus system.

#### 5.1.5 Respondents' experiences

In order to form an understanding of where incentivisation is most commonly used, the respondents were asked to provide information regarding the regions and if possible, the countries their customers are located in (see diagram 10). Based on the responses, incentivisation is most common in Western Europe although nearly 37 percent of the respondents said that none of their customers implement incentivisation. Of the customers using incentivisation, approximately 46 percent use only positive in-

centivisation and 54 percent use both. On average, 10 percent of the respondents' customers use incentivisation. The respondents named Belgium and Netherlands as countries in which incentivisation is most commonly used. One respondent stated that the use of incentivisation does not depend on country but rather on industry.

Diagram 10. Regions



The respondents were asked to name effective and ineffective incentives used by their customers. Incentives and incentivisation activities regarded as effective in practice included: increase of business, bonus malus systems related to KPI's, bonus related payload optimization program, an annually paid positive bonus reward of up to 3 percent which is reinforced with a monthly review, prolongation of contract, increased volume, on-site logistics optimisation, and rate increases. Bans were considered ineffective in motivating to perform better.

As assumed, incentivisation actions have not decreased carriers' motivation but, on the contrary have increased it (see diagram 11.). Diagram 12, however, demonstrates that nearly a third of the respondents have not experienced improvement of performance resulting from incentivisation.

Diagram 11. Impact on motivation

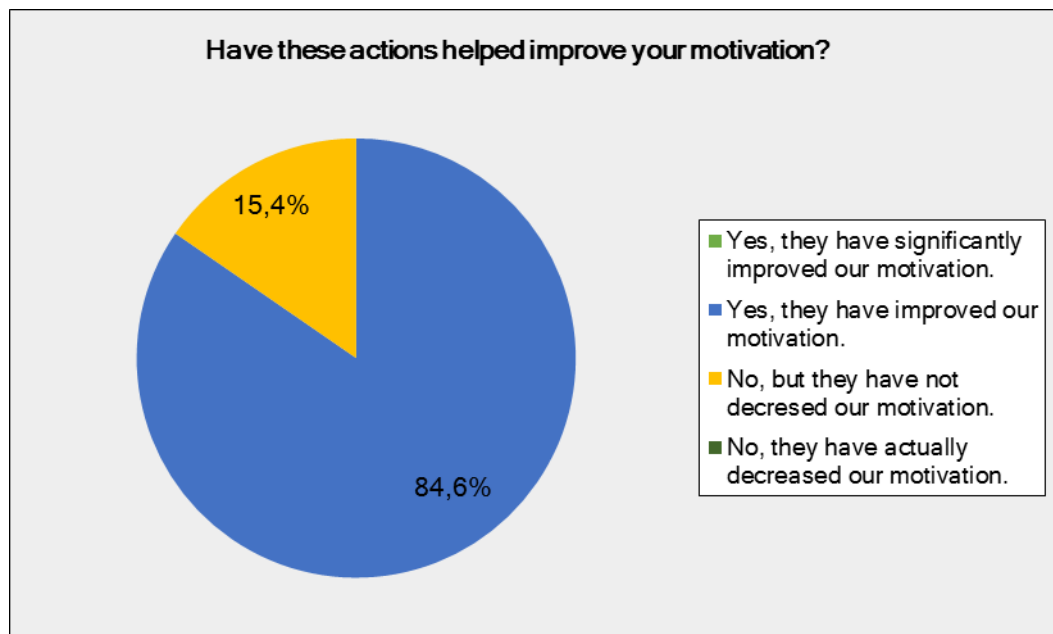
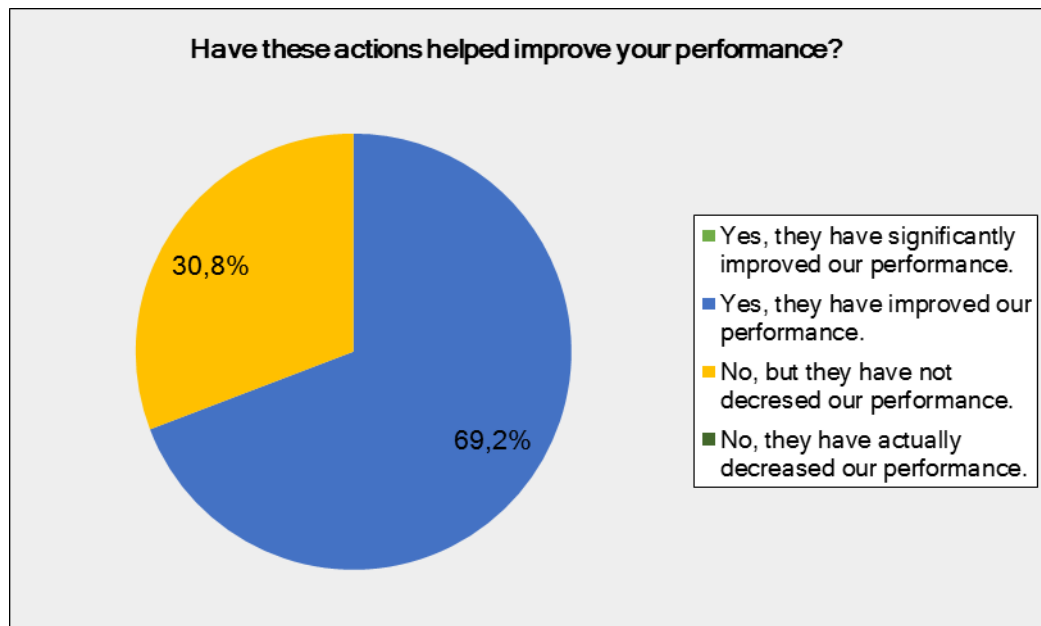


Diagram 12. Impact on performance

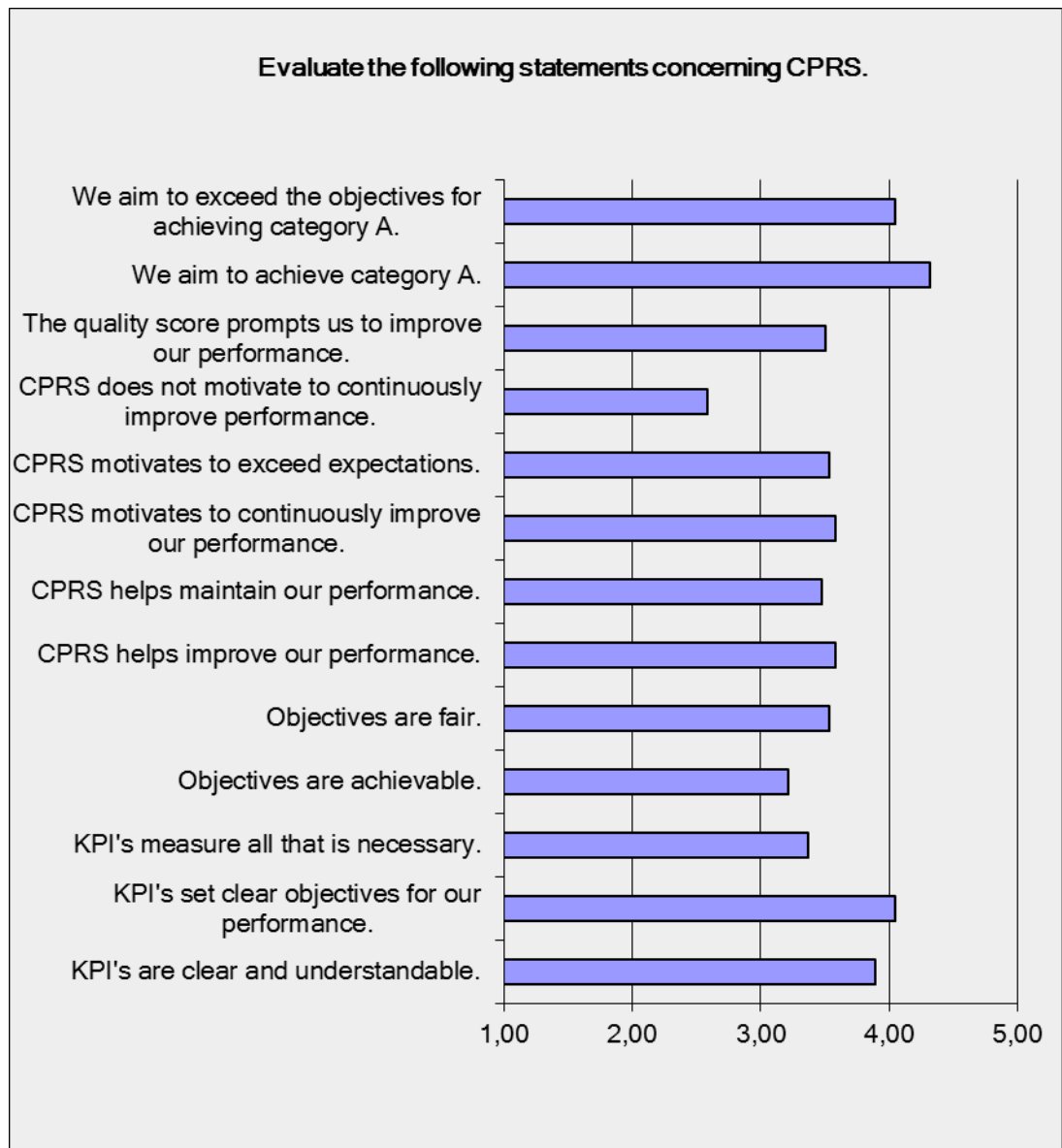


The factors affecting carriers' experiences should be further investigated to reveal the reasons behind a successful incentive system.

#### 5.1.6 Experiences with Company X

To identify problem areas in Company X's current system as perceived by the carriers, respondents were asked to evaluate statements concerning CPRS. The results, as presented in diagram 13, indicate that carriers are somewhat satisfied with the CPRS, although they agree with introducing positive KPI's and rewarding.

Diagram 13. CPRS

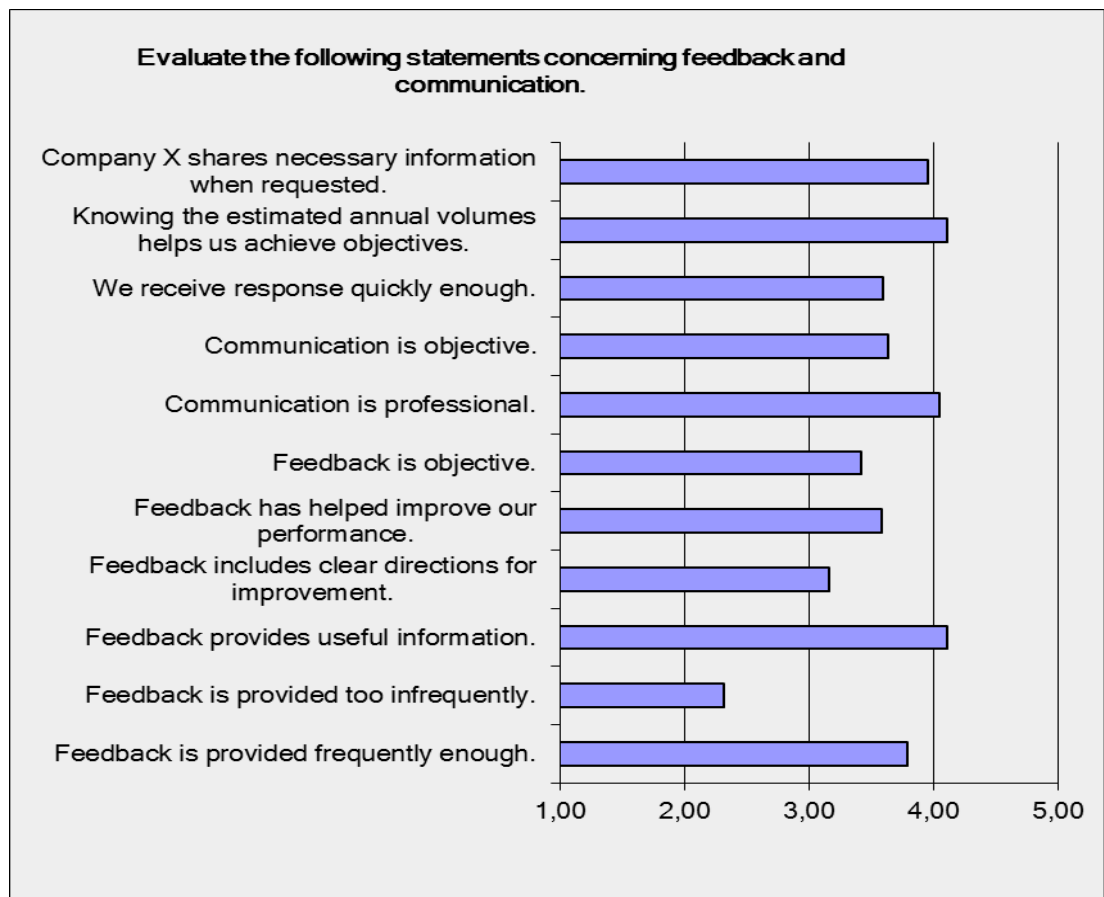


Although carriers are somewhat satisfied, there is still much room for improvement. The number of carriers who regard KPI's as understandable should be as close to maximum as possible. Carriers agree that new areas of measurement should be introduced. The objectives must be perceived as achievable to ensure best motivation and willingness to achieve them. According to the survey results, the CPRS is not effectively motivating carriers to improve performance as the positive statements concerning CPRS received an average of 3.54 out of 5.



The evaluation results of statements concerning Company X's feedback and communication is presented in diagram 14. Carriers compliment Company X on professional communication, sufficient sharing of information, and usefulness of the provided feedback.

Diagram 14. Feedback and communication



Feedback is not providing clear directions for improvement and six out of the 19 respondents disagree with the feedback being objective. Carriers should not feel that personal relationships affect the evaluation of their performance.

The carriers are not dissatisfied with Company X's relationship management, but improvements are welcomed. The answers submitted for the open answers provide more information and development suggestions.

## 5.2 Carriers' suggestions

The carriers were asked to submit their own development suggestions and whether or not they wished to be credited for said suggestions. Of the respondents who submitted their development suggestions, four wish to be credited for them, five want to stay anonymous, and one did not provide an answer for the question and thus the respondent's answers were processed anonymously. All of the submitted, experience based improvement proposals are valuable for creating a practicable system.

### 5.2.1 Anonymous suggestions

Carriers wishing to stay anonymous would improve the measurement and rating system of Company X and include positive KPI's for recognising exceeding performance such as transporting rush shipments or shipments on not contracted lines.

Regarding Company X's feedback and communication, the carriers hope for immediate and more detailed information of performance deviations. The broad descriptions of occurred incidents delivered monthly do not support implementation of corrective measures but make it difficult or even impossible. Carriers wish to take immediate action to correct performance errors as effectively as possible. One suggestions was to notify of all safety incidents immediately or to provide a weekly performance overview with a detailed description of each incident. Regular performance review meetings were also proposed.

Development was also proposed to information sharing and communicating. Monthly forecasts would be helpful for some carriers to enable best possible service levels. Direct communication of significant changes to shipment details such as changing of unloading date was hoped for as now they are only updated via the loading booking calendar instead of ensuring carriers agreement upfront.

### 5.2.2 Nominal suggestions

Respondent A from a Dutch company expresses his satisfaction with the current system but suggests more detailed feedback including on-time delivery score and HSE report. He also hopes for the haulier event to be arranged annually.

Respondent B, Division Manager Scandinavia at an Austrian company, hopes for Company X to improve its feedback policies concerning loading deviations. She suggests providing immediate feedback at the loading point for the driver if a loading performance deviation occurs.

Respondent C, the director of BU dry bulk located in Switzerland, would develop Company X's measurement system to recognise carriers' attempts to prevent bag slitting. He also proposes that Company X could develop a bonus malus system including a payload optimisation program or other similar cost related targets to motivate carriers.

Respondent D, Key Account Director of an Austrian company submitted highly professional and valuable suggestions and insight. As respondent C, he also emphasises the effectiveness of bonus malus systems and adds "premium to change" procedure as an effective way to motivate suppliers. He refers to formally defining preference for top performing carriers during tenders. Respondent D accentuates that in order to be successful and motivating, an incentive system must be "well balanced and based on a KPI measurement free of any defects and based on realistic assumptions".

He criticizes the current measurement system for being unbalanced as the loading site requirements receive the highest emphasis by far when again carriers' performance on delivery site receive little attention, and for disabling recognition of extra service such as flexibility, oversupply, or solving of complex and urgent matters. According to his experience, the current system can even punish carriers' for offering exceeding performance. This is probably due to the presence of solely negative KPI's; the extra service is not recognised but any minor incidents during the execution of e.g. rush shipment is recorded. Respondent D has learnt from his discussions with Company X executives that they too realise the problems caused by the current system providing distorted conception of carriers' performance.

For developing the measurement system, respondent D suggest drastic measures: complete renovation of the system. The system should be composed symmetrically of negative and positive KPI's which contribute 50/50 to the quality score and in addition to measuring positive performance it should also be rewarded. His suggestion involves accumulation of points equally from delivery site and loading site. The scale should be planned such that each carrier reaching objectives should be positioned in B category at the least.

Respondent D proposes a weekly performance report with defined contact person and procedure for carriers to claim groundless or missing points within e.g. one week followed by an acceptance or rejection from Company X. A justification for assignment of each code should be presented by documentation or other proof. Both sides should notify of serious incidents immediately.

Respondent D informs that the company MARS Inc. has managed to establish a functioning system similar to the suggested model. He also offers to personally support Company X in developing its carrier performance measurement and management.

## 6 OUTCOME

The presented outcomes were formed based on the studied theory, empirical research, and surveying of the company's current situation. These outcomes are only suggestions and their practical application requires more research and consideration. The next tender of a suitable region could provide a pilot group for testing an improved measurement system and for incentive system. Improvements for feedback and communication can be implemented during the ongoing contract periods.

The importance of involving the suitable carriers in development planning must be emphasised. Mutual discussion ensures that the new system truly motivates the carriers. Respondent D offered his professional experience to help develop the new system.

### 6.1 Suggested modifications for CPRS

The theory behind supplier incentivisation clearly demonstrates the relationship between performance measurement and the performance received from supplies. Meas-

urement systems define the objectives and requirements for supplier and they should reflect the buying company's expectations as wholly as possible:

*“... suppliers are often only as good as they have to be and that buying firms often deserve what they get from suppliers because they have not asked for more”* (Ellram & Krause, 1997, p. 51).

If positive performance is measured and recognised, the company is more likely to receive such performance from suppliers. CPRS's highest class A is currently defined as “No actions required” which indicates that Company X is satisfied with maintaining even the minimum level of performance defined in the contract and does not expect its carriers to exceed expectation. The range of categories should include a highest class for those delivering even more than promised. For ranking of the carriers I suggest a modified model as presented in table 1:

Table 1. Carrier ranking

Class	Requirements and actions
A	<ul style="list-style-type: none"> <li>• Excellent performance (over ____ percent)</li> <li>• Contractual requirements exceeded</li> <li>• Are awarded with agreed incentive rewards</li> <li>• Preferred suppliers during tenders</li> <li>• Staying in category A for (e.g. one year) prior to contract closing enables longer contract periods</li> <li>• Haulier event</li> <li>• Primary consideration for new/released routes</li> </ul>
B	<ul style="list-style-type: none"> <li>• Good performance (over ____ percent)</li> </ul>

	<ul style="list-style-type: none"> <li>• Contractual requirements delivered</li> <li>• Are encouraged to improve performance</li> <li>• Haulier event</li> </ul>
C	<ul style="list-style-type: none"> <li>• Poor performance (percent)</li> <li>• Contractual requirements are not delivered</li> <li>• Are required to improve performance</li> <li>• Goals are presented (what and when) to reach category B</li> <li>• Failure to improve by (when) results in falling into lower category</li> </ul>
D	<ul style="list-style-type: none"> <li>• Unacceptable performance (percent)</li> <li>• Severe safety deviations</li> <li>• Improving quality is necessitated</li> <li>• Goals are presented (what and when) to reach category B</li> <li>• Appropriate increase of costs is acceptable for reaching and maintaining performance proper to category B</li> <li>• Failure to improve by (when) results in termination of contract</li> </ul>

All carriers are to start at class B: contractual requirements delivered. The requirements and consequences must be known to the carriers. The presented model is mere-

ly a suggestion and consulting active, well performing carriers is advised. Involving carriers in the development of measurement system is justified by theory and survey responses.

The score is to be calculated with the existing formula, but the KPI, or reason code, list must be updated to enable positive recognition and to consider the differences between the loading and transporting of packed and bulk. I suggest a base containing metrics suitable for both, and specific metrics to be added for packed and bulk. The metrics are to equally measure both positive and negative performance in these areas and delivery performance is to be better taken into account. Safety is still emphasised to comply with Company X's values. The suggested measurement areas and metrics as presented in tables 2, 3, and 4 are based on the answers discovered for the first research question: what should be measured and how? Some of the existing metrics are also included. Specific metrics for packed and bulk require more study.

Table 2. Measurement areas and metrics (base)

Area	Metrics
Service	<ul style="list-style-type: none"> <li>- Inadequate documentation</li> <li>± Frequency of deviations</li> <li>▪ Customer service               <ul style="list-style-type: none"> <li>± Response time</li> <li>± Quality of service</li> </ul> </li> <li>▪ Loading               <ul style="list-style-type: none"> <li>- Not on-time loading</li> <li>- No loading booking</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>▪ Delivery           <ul style="list-style-type: none"> <li>- Late delivery</li> <li>- Customer claim/complaint</li> </ul> </li> </ul>
Safety	<ul style="list-style-type: none"> <li>- Minor safety incidents</li> <li>- Severe safety incidents</li> <li>+ Measures to improve safety</li> <li>+ Adapting and periodically renewing Cefic SQAS</li> </ul>
Flexibility	<ul style="list-style-type: none"> <li>+ Accepting extra volume</li> <li>- Refusing extra volume</li> <li>+ Executing rush orders</li> <li>- Refusing booking</li> <li>+ Executing orders for non-contracted lines</li> </ul>
Correction	<ul style="list-style-type: none"> <li>▪ Claim handling           <ul style="list-style-type: none"> <li>± Reaction time</li> <li>± Settlement of claims</li> <li>± Implementation of corrective actions</li> <li>± Implementation of preventive actions</li> <li>+ Reporting near miss incidents</li> </ul> </li> </ul>



Innovativeness	<ul style="list-style-type: none"> <li>+ Offering new logistical concepts</li> <li>+ Providing solutions for Company X issues</li> </ul>
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Table 3. Measurement areas and metrics (packed)

Area	Metric
Service	<ul style="list-style-type: none"> <li>▪ Loading <ul style="list-style-type: none"> <li>- Inadequate load securing</li> </ul> </li> </ul>
Innovativeness	+ E.g. Preventing bag slitting
Safety	- Climbing on load

Table 4. Measurement areas and metrics (bulk)

Area	Metric
Service	<ul style="list-style-type: none"> <li>▪ Loading <ul style="list-style-type: none"> <li>- Problems with cleaning certificate</li> <li>+ Optimal payload</li> </ul> </li> </ul>
Innovativeness	+ Preventing spills

The suggested metrics are not in accordance with ECTA codes as ECTA-CEFIC guidelines do not provide means to measure positive performance. A strategy for implementing the new measurement system should be established to determine the operative aspects of the implementation; are ECTA codes still used and if yes, are positive and negative performance then recorded separately or are specific ECTA type codes created for positive performance if possible. A detailed explanation must be included to each code once the codes are created.

The positive KPI's to be used should cover all incidents Company X hopes to receive and the negative KPI's should cover all deviations Company X needs to prevent from occurring. The defined performance indicators will function as guidelines for carriers. (Van Weele, 2010, p. 100.)

The areas and metrics presented are merely examples and suggestions based on which the new system can be formed. Specific metrics needed for packed and bulk should be examined. An incident code system is not applicable for each metric as for example adapting SQAS, payload optimisation, and innovativeness are generally long-term operations. Therefore a total score should be calculated based on monthly and annual performance. Data for the evaluation is to be obtained from IT systems.

## 6.2 Suggestions for supplier incentivisation

Supplier incentivisation appeals to suppliers for psychological reasons; human beings generally want to succeed. Measuring of positive performance supposedly increases carriers' motivation to succeed to some extent, but binding rewards to exceptional performance would amplify the effects. CIPS (2006, p.4) accentuates, discussion and mutual agreement on incentives between the buying company and its best suppliers is necessary for an effective incentive system.

The suggested incentive system is based on the proposals and data received from the surveys to ensure its appeal to the carriers, and on Company X's needs and requirements to ensure its applicability and compliance with the second research question: what type of incentives appeal to the carriers?

The ranking system presented in table 1 is linked to the incentive system and already introduced some incentives and their requirements. In the survey carriers evaluated

certain incentives as regards to their effectiveness. The suitable incentives perceived as most effective were:

- Increase of business (6.26)
- Priority consideration for orders (5.84)
- Training (5.58)
- Increase of status (5.47)
- Public recognition and awards (5.42).

Combining the previous results with the answers submitted for open questions indicates that priority consideration for orders, bonus malus system, financial compensation, and prolonged contracts are the most appealing incentives for high performing carriers. Financial compensation should be used only if the total benefits to be gained exceed the resulting costs.

Carriers continuously performing up to class A standards should receive the status of preferred suppliers. The preference must be formally defined and informed. Said status entitles the carriers for priority consideration for orders and new routes, and for tenders. Carriers in class A should also be offered a greater share of deliveries.

An incentive which would result in direct savings for both parties is prolongation of contracts. Awarding carriers proven to deliver exceptional performance with longer contracts would simplify the tendering process by decreasing the number of participating carriers and involved routes. Longer contract periods supposedly motivate carriers to involve and promotes commitment to Company X.

Decreased volume and ultimately termination of contract should be implemented for carriers constantly delivering performance below contract requirements. Negative incentives should be used only after presenting the carrier with formal requirement to improve. If such incentives are used, Company X should first contract the excess volume to be transported by a class A carrier when possible, class B when not.

Introduction of a payload optimisation program is an interesting proposal especially due to Company X also monitoring carriers' volumetric efficiency and loading accuracy. The program should include preferably financial rewards obtained by achieving

defined objectives, i.e. exceeding certain percentage limits. Investments used by carriers to improve their volumetric efficiency and accuracy could be supported financially. Optimal payloads and accurate loads contribute to direct financial benefits such as fewer customer claims.

The Haulier Event is suggested to be organised annually and the carriers in classes A and B to be invited. The contents of the event should be similar to the earlier events with increased sharing of information. The presented awards should be published to a selected group, mainly the carriers and Company X's logistics personnel, and the awarded carriers should be entitled to publish information of the award as suitable.

The implemented incentivisation tools should be discussed with the best performing and most active carriers. Each A class carrier should receive incentives appealing to them and thus they should be mutually agreed.

### 6.3 Suggestions for improving supplier relationship management

Need to increase the frequency and level of detail of the feedback provided by Company X has arisen from Company X and carriers alike. Theory also supports provision of frequent and detailed feedback including instructions for improvement. Based on the theoretical and empirical research, the feedback report of Company X should:

- Be provided weekly
- Include details of incidents
- Include documentation of incidents
- Include contact information
- Define a "point claim" procedure
- Include on-time delivery score

The carriers should have an appeal period of one week from receiving the report to claim any groundless or missing points. Additionally immediate verbal feedback should be provided on site after any incident. Company X could also benefit from collecting reverse feedback from carriers e.g. quarterly.

The positive and negative performance deviations to which no code is applicable should be recorded per carrier. The related personnel should insert information of any

such incidents to a defined location in an appropriate IT system. These performance logs would be used during tenders, to decide on incentivisation and contract period length, and to evaluate the carriers on an annual level. Carriers' performance must be recorded in such a way that it provides the most accurate perception as possible. A formal procedure for recording of positive performance should be established to ensure its realisation.

As carriers wish for more physical meetings, arranging performance review and HSE recapitulation is advisable. Due to Company X's large base of transport service providers such meetings could be arranged for several carriers jointly to support cost saving measures, inviting carriers of same performance class per region. Such meetings would promote competition, exchange of information and benchmarking.

## 7 CONCLUSIONS

The theoretical and empirical research support the assumption of supplier incentivisation's ability to improve suppliers' motivation and performance but that it should only be implemented to the suppliers identified to deliver performance exceeding contractual requirements. The research also suggests that supplier incentivisation requires the commissioning company to practice mature supplier management practices: advanced performance measurement, refined feedback and communication, and applicable contract management.

As mentioned in the introduction, the aim was to provide Company X with motivational tools to promote continuous improvement amongst its carriers. The suggested modifications for the company's carrier management practices are meant to benefit both parties: Company X by motivating carriers to deliver value adding performance, and carriers by awarding them with incentives.

Although the original objective was to create KPI's which would require little modifications before implementing, the thesis does not provide a measurement system ready for use, but merely suggestions and information based on which Company X can create a functioning system capable of recognising positive performance. This is due to the need for defining a strategy, "how-to", before creating the final measurement system, "what-to". The different measurements needed for bulk and packed need more examination, and the choice of whether or not to use ECTA codes in the future should

be decided. The suggested measurement areas and metrics provide a superficial answer for the research question “what to measure and how to enable positive recognition?”.

The suggested incentivisation system is not ready for use either, as the incentives to be used should be discussed with each carrier individually. The appeal of different incentives is perceived differently from carrier to carrier. The one incentive that should be used for all carriers continuously performing up to class A standards is contract prolongation which benefits both Company X and carrier. The modifications for carrier ranking system would increase motivation and improve performance. The incentive system is based on the answers revealed for the research question “which incentives appeal to the carriers?”.

The prolongation of contract periods and defining a Preferred Suppliers procedure is strongly recommended. Said improvements are justified by theory and survey results. Suggested improvement of feedback is an inexpensive modification the need of which is identified amongst Company X personnel and carriers. The suggested modifications for improving feedback would be beneficial to implement shortly. An alternative for the presented feedback policy would be to monitor the carriers performance on a weekly level but only provide weekly reports if the need arises. The other aspects would still follow the suggested guidelines. The problem of such procedure would be that it is not automatic and continual which creates the possibility for uneven quality of feedback or even forgetting to provide it.

The most valuable output of this thesis is the information obtained through the survey as it creates empirical evidence of carriers’ attitudes and beliefs regarding incentivisation. It provides credible information about which incentives appeal to carriers. Carriers are most motivated by continuity and assurance of business: longer contract periods and primary consideration for orders/during tenders. Substantial recognition is also valued and thus award ceremonies motivate suppliers. The survey results indicate that benchmarks for supplier incentivisation should be searched for in Western Europe, Belgium and The Netherlands especially. The survey also identified active carriers who should be asked to partake in the development process.

Any company planning on introducing incentivisation should remember to thoroughly examine the current supplier management procedures: performance measurement,

feedback, communication, contracts, and evaluation. The objectives and incentives are best to be discussed with best performing suppliers to ensure their achievability and appeal.

Improved carrier performance can be expected to decrease customer claims and enhance the satisfaction of Company X's customers by increasing on-time delivery performance, increasing loading accuracy, improving customer service on customer site, and enabling better responsiveness to rush and extra orders. In addition to the previous, Company X and carriers would receive better service, improve work pleasantness, improve volumetric efficiency, improve safety, and encourage innovativeness. Financial benefits can be expected from less resources spent on customer claim handling and prolonged contract periods (simplified tenders). Positive recognition of suppliers' capabilities improves their motivation and thus performance. It is especially important for further developing the best performers to whom competition does not apply genuine pressure. Suppliers can be assumed to use a larger share of their capacity to the companies that provide greater benefits.

## 8 CRITICAL ASSESSMENT

The thesis failed to provide information of financial impacts of supplier incentivisation. The financial aspect is of great importance and before embarking in incentivisation companies are advised to examine companies already implementing it. In order to reveal said impacts on a larger scale, further research is needed. MARS Inc. was named as a company successfully implementing supplier incentivisation.

The survey focused on one company's carriers and their European customers receiving 19 responses and thus the results are not sufficiently extensive to provide a broader insight of incentivisation operations and their effectiveness. The extent of use of incentivisation and of measurement of positive recognition should be further studied. The differences between supplier incentivisation in the procurement of materials and services should also provide interesting and beneficial information for companies.

The metrics proposed in this thesis are only proposals and the loading and delivery processes should be examined to identify precise measurement objects. The transports of packed products were overemphasised in relation to bulk products. The performance incidents, positive and negative, must be collected and evaluated to decide

what is to be actually measured, the relative importance of each metric, and the strategy for executing the new measurement system.

The effects of location, i.e. culture, on carriers' experiences and perceptions is not considered in this thesis. Investigating the incentivisation activities and their impacts by country would provide interesting insight of its effectiveness and prevalence in relation to culture. Incentives and incentivisation activities are likely to produce different results depending on the supplying company's culture.

Although the information obtained through the survey provided important data which was utilised to form the outcomes, the inclusion of questions concerning the metrics used by carriers' customers using incentivisation would have added more value to the study. This too should be examined to identify metrics contributing to effective incentivisation. Performance measurement system is the ground on which supplier management is built on.

Introducing supplier incentivisation and measuring positive performance is advisable for any company to enhance procurement of important products and services especially. Incentivisation appeals to high class suppliers and in modern market suppliers also are choosing who to engage in business with. Companies receive what they measure and thus measuring, and recognising, performance that exceeds contractual requirements produces such performance.



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# Developing carrier relationships

## Incentivisation and carriers

This survey examines transportation companies' views and experiences on motivation and performance, and how they are affected by different factors. You are asked to answer these questions from work perspective, based on your observations and beliefs. The results of this survey are handled anonymously and are used as material for a bachelor's thesis contracted by Company X.

First you are asked to evaluate general statements. After these questions you are asked about your experiences with other customers. Finally you are asked to evaluate Company X's carrier performance rating system and supplier relationships handling.

Incentivisation is defined as "a process by which a provider is motivated to achieve extra value added services over those specified originally and which are of material benefit to the user. These should be attainable against pre-defined criteria. The process should benefit both parties" by Central Procurement Unit (CUP). Incentive systems are mainly built up of mutually agreed upon objectives, rewards and penalties.

Incentives are rewards or penalties that are applied according to agreed upon conditions.

If you have any questions about the survey, please contact the conductor Sini Koivisto via email: [sini.koivisto@student.kyamk.fi](mailto:sini.koivisto@student.kyamk.fi).

## Before we get started.

Thank you for participating in this survey. Please provide the required information before continuing.

### 1. Background information.

Name and Position	<input type="text"/>
Company	<input type="text"/>
Number of employees	<input type="text"/>
Annual turnover	<input type="text"/>
City	<input type="text"/>
State/Province	<input type="text"/>
Country	<input type="text"/>

### 2. Business with Company X.

Volume per month	<input type="text"/>
Volume per year	<input type="text"/>
Number of orders per month	<input type="text"/>
Number of orders per year	<input type="text"/>
Share of your business	<input type="text"/>

## Motivation

## Developing carrier relationships

### 1. Evaluate the following statements concerning motivation and performance.

	Strongly Disagree	Disagree	Neither Disagree Nor Agree	Agree	Strongly Agree
Motivation affects our company's performance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our company's performance affects motivation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our company's performance affects our customer's performance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Customer's performance affects our company's performance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Customer's actions affect motivation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Communication and feedback

*This section examines business related interaction between customer and service provider.  
Feedback refers to service performance related feedback.*

### 1. Evaluate the following statements concerning communication.

	Strongly Disagree	Disagree	Neither Disagree Nor Agree	Agree	Strongly Agree
Communication is important.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communication should be frequent.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communication should be kept to minimum.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Polite and supportive communication motivate to improve performance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Two-way communication helps improve performance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Information sharing is important.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Knowing customers' sales forecasts enables higher service levels.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Receiving frequent estimates of required volume enables higher service levels.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### 2. Evaluate the following statements concerning feedback.

	Strongly Disagree	Disagree	Neither Disagree Nor Agree	Agree	Strongly Agree
Receiving feedback helps improve performance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Knowing of good performance motivates to perform even better.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Knowing of bad performance motivates to improve performance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Knowing of bad performance decreases motivation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Negative feedback should involve suggestions on how to improve.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Receiving formal feedback helps improve performance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of formal feedback lowers motivation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Receiving informal feedback helps improve performance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Control and involvement

## Developing carrier relationships

*Here control refers to the customers actions aimed to control or influence suppliers actions.  
Involvement refers to suppliers taking part in decision making, service development etc.*

### 1. Evaluate the following statements concerning control.

	Strongly Disagree	Disagree	Neither Disagree Nor Agree	Agree	Strongly Agree
High level of control increases performance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
High level of control lowers performance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
High level of control indicates lack of trust.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
High level of control indicates activeness and interest.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Low level of control increases performance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Low level of control lowers performance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Low level of control indicates trust.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Low level of control indicates inactiveness and lack of interest.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### 2. Evaluate the following statements concerning involvement.

	Strongly Disagree	Disagree	Neither Disagree Nor Agree	Agree	Strongly Agree
Possibility to involve increases motivation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Being expected to involve increases motivation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Being expected to involve lowers motivation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Competition and incentivisation

*These statements concern the affects of competition and incentivisation on performance and motivation.*

*Definition of incentivisation by CUP:*

*"A process by which a provider is motivated to achieve extra value added services over those specified originally and which are of material benefit to the user. These should be attainable against pre-defined criteria. The process should benefit both parties".*

*Customer's negative KPI's are indicators that only measure failures. Positive KPI's measure performance exceeding objectives.*

# Developing carrier relationships

## 1. Evaluate the following statements concerning competition.

	Strongly Disagree	Disagree	Neither Disagree Nor Agree	Agree	Strongly Agree
Competition affects motivation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Competitive environment increases motivation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Knowing that our competitors are performing better increases motivation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Knowing that our competitors are performing better lowers motivation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Knowing that our company is performing better increases motivation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of competition decreases motivation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fear of losing business due to poor performance helps improve performance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Possibility to gain more business by performing well helps improve performance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## 2. Evaluate the following statements concerning incentivisation.

	Strongly Disagree	Disagree	Neither Disagree Nor Agree	Agree	Strongly Agree
Rewards motivate to improve performance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Penalties motivate to improve performance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Penalties motivate to maintain performance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mutually agreed upon rewards motivate to improve performance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rewards decided by customer motivate to improve performance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
KPI's clarify customer's expectations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Using solely negative KPI's helps improve performance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Using solely negative KPI's lowers performance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A mix of negative and positive KPI's helps improve performance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Achievable objectives motivate to exceed expectations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unfair objectives lower performance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Objectives should be mutually defined.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Objectives should be defined by customer.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Incentives

Here you are asked to rank different incentives, motivators, according to how effective you believe them to be.

## Developing carrier relationships

### 1. Evaluate the following positive incentives.

	Highly Ineffective	Ineffective	Somewhat Ineffective	Neutral	Somewhat Effective	Effective	Highly Effective
Public recognition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increase of business	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recognition letters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recognition awards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Priority consideration for orders	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
References	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Training	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increase of status (e.g. partner)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Certification	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Direct investments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### 2. List any other positive incentives and their effectiveness:

### 3. Evaluate the following negative incentives.

	Highly Ineffective	Ineffective	Somewhat Ineffective	Neutral	Somewhat Effective	Effective	Highly Effective
Loss of business	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Additional third-party audits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Formal claim for improvement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Termination of contract	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Decrease of status	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### 4. List any other negative incentives and their effectiveness:

## Experiences

*This section concerns your experiences with other customers.*



# Developing carrier relationships

## 1. In which of these regions are your customers located?

- ☐ Russia
- ☐ Southern Europe
- ☐ Northern Europe
- ☐ Western Europe
- ☐ Eastern Europe

## 2. Do any of your customers use incentivisation?

- ☐ No
- ☐ Yes

If yes, how large a proportion approximately?

## 3. Which type of incentivisation?

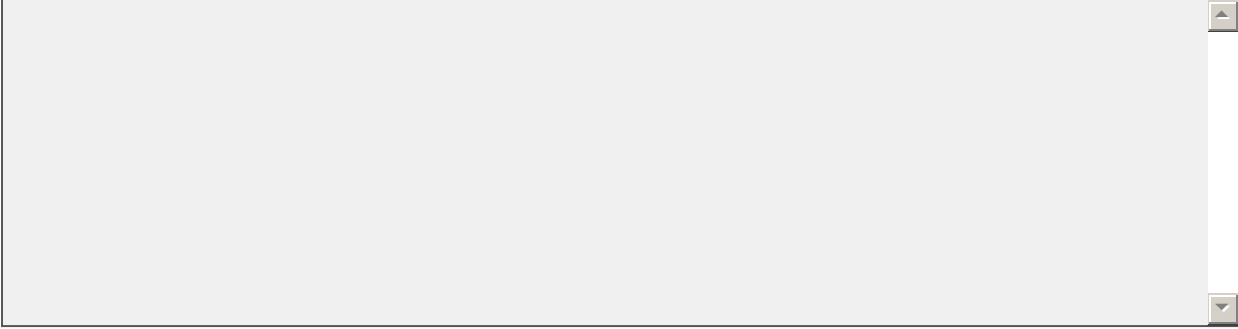
- ☐ Negative
- ☐ Positive
- ☐ Both

## 4. According to your experience, in which countries/regions is incentivisation most commonly used?

## 5. Please list the most effective and ineffective incentives used by your customer:

## Developing carrier relationships

### 6. Please describe other incentivisation activities use by your customers:



### 7. Have these actions helped improve your motivation?

- ☐ Yes, they have significantly improved our motivation.
- ☐ Yes, they have improved our motivation.
- ☐ No, but they have not decreased our motivation.
- ☐ No, they have actually decreased our motivation.

### 8. Have these actions helped improve your performance?

- ☐ Yes, they have significantly improved our performance.
- ☐ Yes, they have improved our performance.
- ☐ No, but they have not decreased our performance.
- ☐ No, they have actually decreased our performance.

## Company X

*This section examines your experiences of working with Company X.*

*CPRS is the Carrier Performance Rating System that uses weighted KPI's to measure carrier performance. The CPRS is an appendix of the contract.*

# Developing carrier relationships

## 1. Evaluate the following statements concerning CPRS.

	Strongly Disagree	Disagree	Neither Disagree Nor Agree	Agree	Strongly Agree
KPI's are clear and understandable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
KPI's set clear objectives for our performance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
KPI's measure all that is necessary.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Objectives are achievable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Objectives are fair.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
CPRS helps improve our performance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
CPRS helps maintain our performance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
CPRS motivates to continuously improve our performance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
CPRS motivates to exceed expectations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
CPRS does not motivate to continuously improve performance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The quality score prompts us to improve our performance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We aim to achieve category A.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We aim to exceed the objectives for achieving category A.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## 2. How would you develop Company X's measuring and rating system?

## 3. Evaluate the following statements concerning feedback and communication.

	Strongly Disagree	Disagree	Neither Disagree Nor Agree	Agree	Strongly Agree
Feedback is provided frequently enough.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feedback is provided too infrequently.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feedback provides useful information.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feedback includes clear directions for improvement.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feedback has helped improve our performance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feedback is objective.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communication is professional.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communication is objective.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We receive response quickly enough.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Knowing the estimated annual volumes helps us achieve objectives.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Company X shares necessary information when requested.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Developing carrier relationships

### 4. How would you develop Company X's feedback and communication?

### 5. Other development suggestions:

### 6. Do you wish to get credit for your development/improvement suggestions? (Other answer will still be handled anonymously.)

- ☐ Yes
- ☐ No